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Cultural Resource Management Report

FINAL REPORT OF A PHASE I ARCHAEOLOGICAL SURVEY
OF THE SOURIS RIVER BASIN PROJECT RURAL IMPROVEMENTS,
RENVILLE, WARD, AND MCHEMRY COUNTIES, NORTH DAKOTA

Lead Field Investigator MERVIN G. FLOODMAN, M.A.

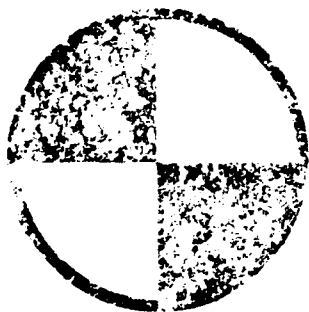
Principal Investigator MERVIN G. FLOODMAN, M.A.

Date 1-4-89 For U.S. DEPARTMENT OF THE ARMY,
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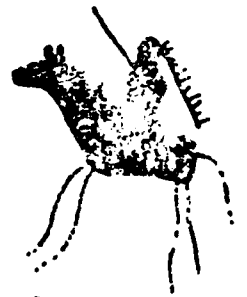
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POWERS ELEVATION CO., INC.

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6a. NAME OF PERFORMING ORGANIZATION Powers Elevation Co. Inc. Archaeology Dept.		6b. OFFICE SYMBOL (if applicable)	7a. NAME OF MONITORING ORGANIZATION U.S. Army Engineer District, St Paul		
6c. ADDRESS (City, State, and ZIP Code) PO Box 440889 Boulder, CO 80044		7b. ADDRESS (City, State, and ZIP Code) 1421 USPO & Custom House St Paul, MN 55101-1479			
8a. NAME OF FUNDING/SPONSORING ORGANIZATION		8b. OFFICE SYMBOL (if applicable)	9. PROCUREMENT INSTRUMENT IDENTIFICATION NUMBER DACW37-88-M-0979		
8c. ADDRESS (City, State, and ZIP Code)		10. SOURCE OF FUNDING NUMBERS			
		PROGRAM ELEMENT NO.	PROJECT NO.	TASK NO.	WORK UNIT ACCESSION NO.
11. TITLE (Include Security Classification) FINAL REPORT OF A PHASE I ARCHAEOLOGICAL SURVEY OF THE SOURIS RIVER BASIN PROJECT RURAL IMPROVEMENTS, RENVILLE, WARD, AND MCHENRY COUNTIES, NORTH DAKOTA.					
12. PERSONAL AUTHOR(S) Mervin G. Floodman, Principal Investigator					
13a. TYPE OF REPORT Final		13b. TIME COVERED FROM _____ TO _____		14. DATE OF REPORT (Year, Month, Day) 88/01/04	
15. PAGE COUNT					
16. SUPPLEMENTARY NOTATION					
17. COSATI CODES			18. SUBJECT TERMS (Continue on reverse if necessary and identify by block number)		
FIELD	GROUP	SUB-GROUP	ARCHAEOLOGY		
			NORTH DAKOTA		
			FLOOD CONTROL		
19. ABSTRACT (Continue on reverse if necessary and identify by block number) The Souris River Basin Project is a flood control program protecting both urban and rural reaches of the Souris River in North Dakota. The portion of the project to be inspected by this survey covers mitigation of project related impacts to rural farmsteads upstream and downstream of Lake Darling. This contract deals with archaeological survey only of fourteen farmsteads in Renville, Ward and McHenry counties within North Dakota. As a result of the study, one prehistoric cultural site and one prehistoric isolated find was recorded. The prehistoric site consists of an unspecified Late Prehistoric cultural material scatter located on arise above a meader of an old channel of the Souris River within the town of Sawyer. The isolated find consists fo a Besant type projectile point of the Late Archaic or Middle Prehistoric period. As an isolated artifact, this find is not significant.					
20. DISTRIBUTION/AVAILABILITY OF ABSTRACT <input type="checkbox"/> UNCLASSIFIED/UNLIMITED <input type="checkbox"/> SAME AS RPT. <input type="checkbox"/> DTIC USERS			21. ABSTRACT SECURITY CLASSIFICATION Unclassified		
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OF THE SOURIS RIVER BASIN PROJECT RURAL IMPROVEMENTS,
RENVILLE, WARD, AND MCHENRY COUNTIES, NORTH DAKOTA

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Principal Investigator

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ARCHAEOLOGY DEPARTMENT
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P.O. Box 440889
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Performed Under:

Contract No. DACW37-88-M-0979

Prepared For:

U.S. Army Corps of Engineers
St. Paul District
1135 U.S. Post Office & Custom House
St. Paul, Minnesota 55101-1479

Date:

January 4, 1989

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1.0 INTRODUCTION

The Souris River Basin Project is a flood control program protecting both urban and rural reaches of the Souris River in North Dakota (Figure 1). The overall project includes features within both the United States and Saskatchewan, Canada. Canadian features include the construction of the Alameda and Rafferty reservoirs for flood storage, and, the operation of a diversion between the Rafferty Reservoir and the international border. United States features include modification of the gated outlet structure at the Lake Darling dam, mitigation of project related impacts to U.S. Fish and Wildlife Service lands, mitigation of project related impacts to farmsteads both upstream and downstream of Lake Darling, and a water control plan for the safe release of the flood waters to downstream areas. In addition, flood control levees will be constructed at the town of Velva, channel modifications and levees at Minot, and levees at Sawyer, all within North Dakota. All of the project components in the United States will be constructed by the U.S. Army Corps of Engineers St. Paul District (COE) (U.S. Army Corps of Engineers 1988).

Cultural resource surveys have already been conducted for the majority of the project areas within North Dakota (Floodman et al. 1985; Good and Fox 1978; Schweigert 1979). In Canada, cultural resource investigations have been completed at Alameda and Rafferty Reservoirs.

On June 3, 1988, the COE awarded contract number DACW37-88-M-0979 to Powers Elevation Co., Inc. (Powers) to conduct an archaeological survey of rural improvements for the Souris River Basin Project. The portion of the project to be inspected by this survey contract covers the mitigation of project related impacts to rural farmsteads upstream and downstream of Lake Darling. Proposed COE actions include the raising of access roads, construction of ring levees around farm residences, raising primary farm residences, and the acquisition of farm residences. Farm outbuildings, other than the primary residences, will not be protected by the project. The purpose of the project is to alleviate damages associated with the increased discharges from the Canadian dams. The farmsteads will not be protected from existing flood events (U.S. Army Corps of Engineers 1988).

The current part of this project involves 14 farmsteads in Renville, Ward and McHenry Counties within North Dakota. The goal of the Powers survey was to inventory the location of project features, which are designed to protect these farmsteads, for prehistoric cultural resources. The farmsteads will be discussed by their associated COE identification numbers (ID). Ring levees and related structures were surveyed at a total of seven isolated farmsteads. These residences include ID-420, 960, 1020, 1045, 1108, and 2600. One levee for multiple features was inventoried at ID-1112, 1114, 1116, and at ID-1181, 1182, 1183.

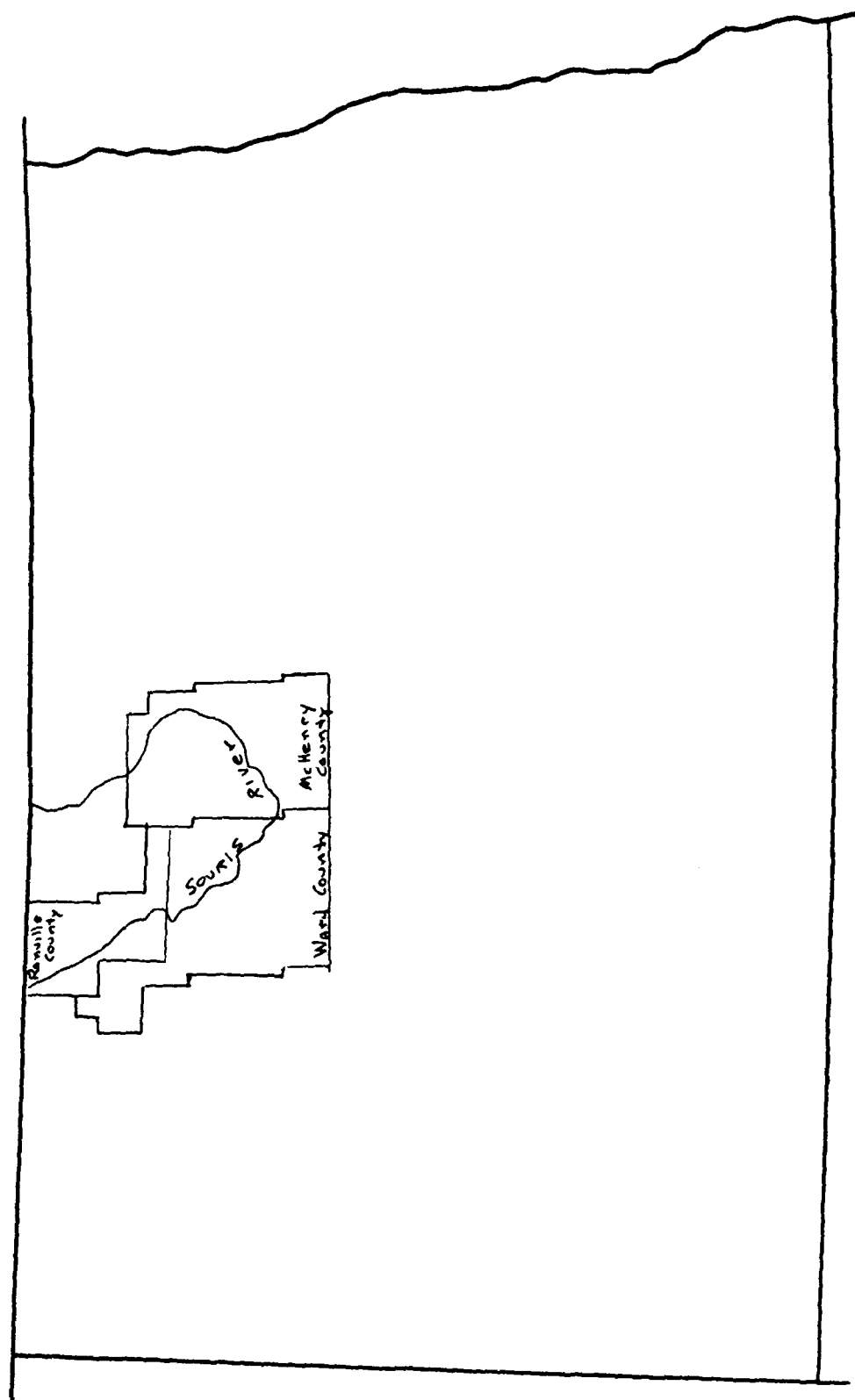


Figure 1. General Project Location Within North Dakota.

At ID-810, the survey was conducted to investigate a report of "arrowheads in the garden," obtained from a COE landowner questionnaire. One other inventory involved a 500 ft long bank stabilization along a meander of the Souris River, east of farmstead ID-1130, along a county roadway. The project areas are shown in Figures 2 through 5 on USGS 7.5' Karlsruhe NE, Sawyer, Surrey and Mouse River Park topographic quadrangle maps.

This contract deals with archaeological survey only. Historic and architectural resources inventory at these farmsteads will be undertaken by a qualified historian under a separate contract. The Powers report will focus entirely upon the prehistoric archaeological resources encountered within the proposed project impact areas. All historic manifestations will be dealt with by another contractor.

The Phase I inventory of the Souris River Basin rural improvements was conducted over the period of July 11-13, 1988, by Mervin G. Floodman of Powers. A total of three person days were expended in the field effort. Field work was accomplished according to the project scope-of-work provided in Appendix A.

The report was written by Mervin G. Floodman. A copy of the field notes are enclosed under a separate cover. The collected artifact will be curated at the museum of the State Historical Society of North Dakota, in Bismarck.

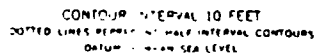
The report provides a summary of previous archaeological and historical studies in the project areas, describes the regional environment, gives a theoretical and methodological overview, describes the field methods, presents a detailed description of the inventory areas and results, and recommends future work necessary as the result of the project findings.

2.0 PREVIOUS INVESTIGATIONS

A literature and files search for the project areas was conducted on June 20-21, 1988, by Nick G. Franke, at the State Historic Preservation Office in Bismarck. The National Register listings, the site location catalog, the survey report catalog, the uncataloged survey reports and the relevant cataloged survey reports were consulted.

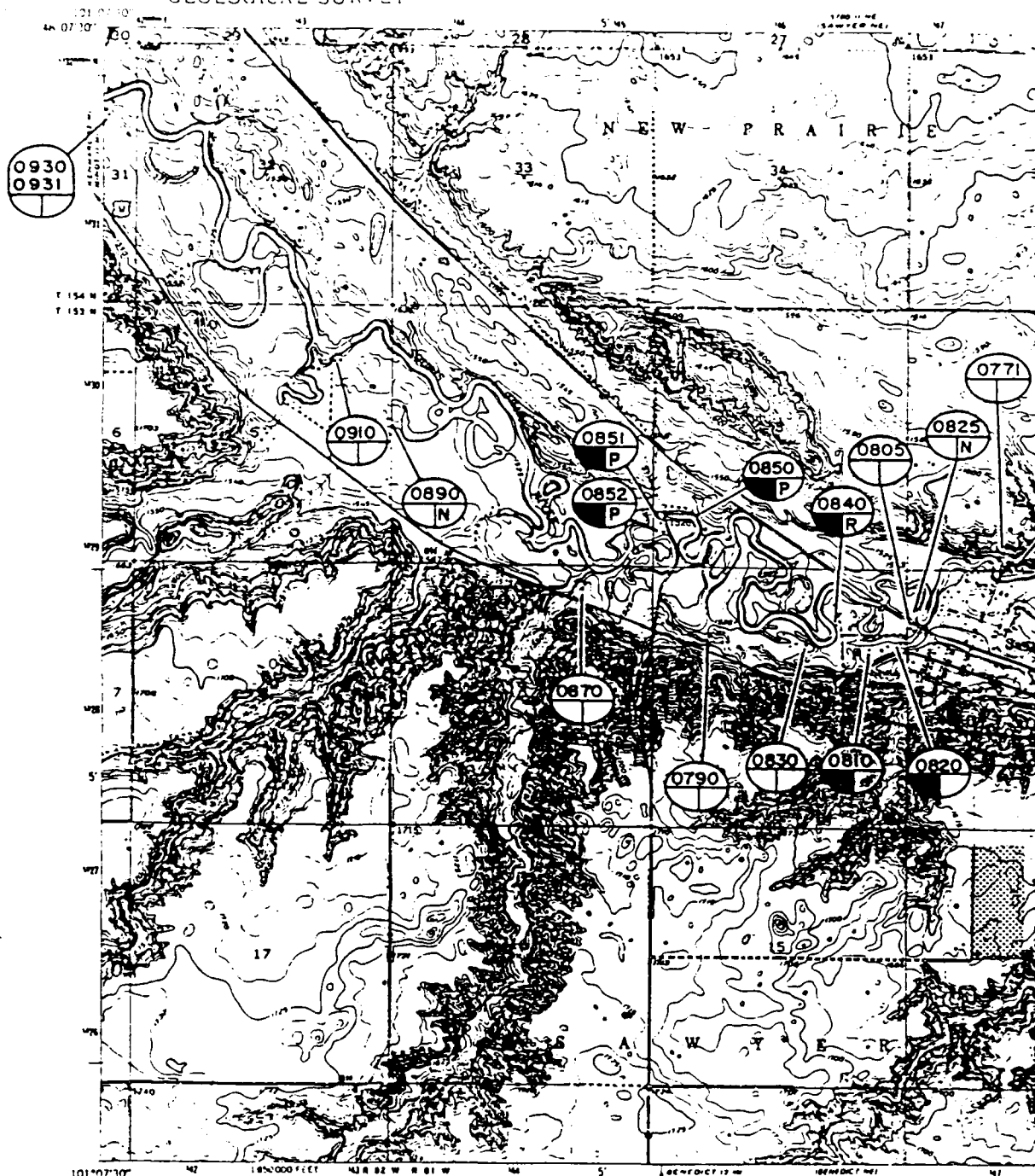
The files search was concentrated on the specific sections in which the project surveys would take place. The legal locations of the parcels examined are: Section 19, T.154N., R.81W.; Sections 2, 3, 10, and 24, T.154N., R.82W.; Sections 2 and 10, T.153N., R.81W., all in Ward County; Section 4, T.154N., R.77W., in McHenry County; and Section 36, T.163N., R.87W. in Renville County. A total of 14 site leads and three sites were reported in the areas of the files search. These are listed in Tables 1 and 2.

48°15' ———



1 of 2

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



Mapped, edited, and published by the Geological Survey
as part of the Department of the Interior program
for the development of the Missouri River Basin

Control by USGS and USC&GS

Culture and drainage in part compiled from

aerial photographs taken 1938

Topography by plane table methods 1948

Projection

1000-foot grid based on North Dakota coordinate system

North zone

1000-meter Universal Transverse Mercator grid lines

zone 18 shown in blue 1927 North American Datum

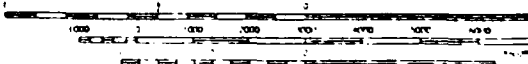
To place on the projected North American Datum 1983

Make the projection lines 4 meters north and

34 meters east as shown by dashed corner lines

UTM GRID AND 1983 MAGNETIC NORTH
DATA BASED AT CENTER OF SHEET

Boundaries shown in purple and unshaded compiled from
aerial photographs taken 1977 and other sources
This information has been included in map sheets 1-481



CONTOUR INTERVAL 5 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

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A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

SAWYER QUADRANGLE
NORTH DAKOTA
15 MINUTE SERIES (TOPOGRAPHIC)
1:50,000 SCALE

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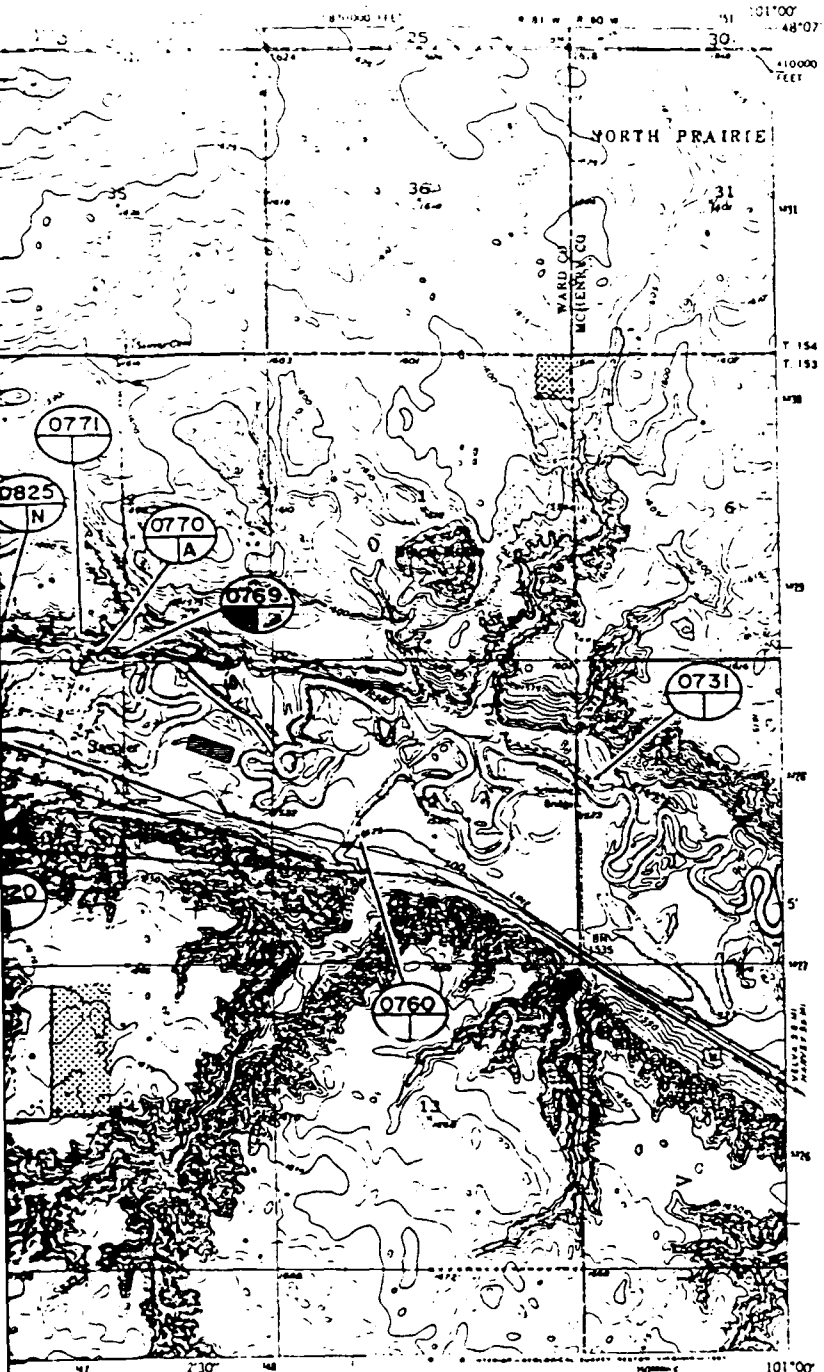
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-  ← NO RESIDENCE
-  ← ABANDONED RESIDENCE
-  ← NO FLOOD PROTECTION
-  ← ROAD RAISE REQUIRED
-  ← FLOOD PROTECTION REQUIRED
-  ← PURCHASE
-  ← SPOIL AREA
-  ← BORROW AREA
-  ← SAND & GRAVEL SOURCE



Figure 3

Improvements 0769 and 0810



ROAD CLASSIFICATION

- Primary highway all weather
- Light duty road all weather
- hard surface
- improved surface
- Secondary highway all weather
- Unimproved road fair or dry weather
- hard surface
- Interstate Route
- U S Route
- State Route

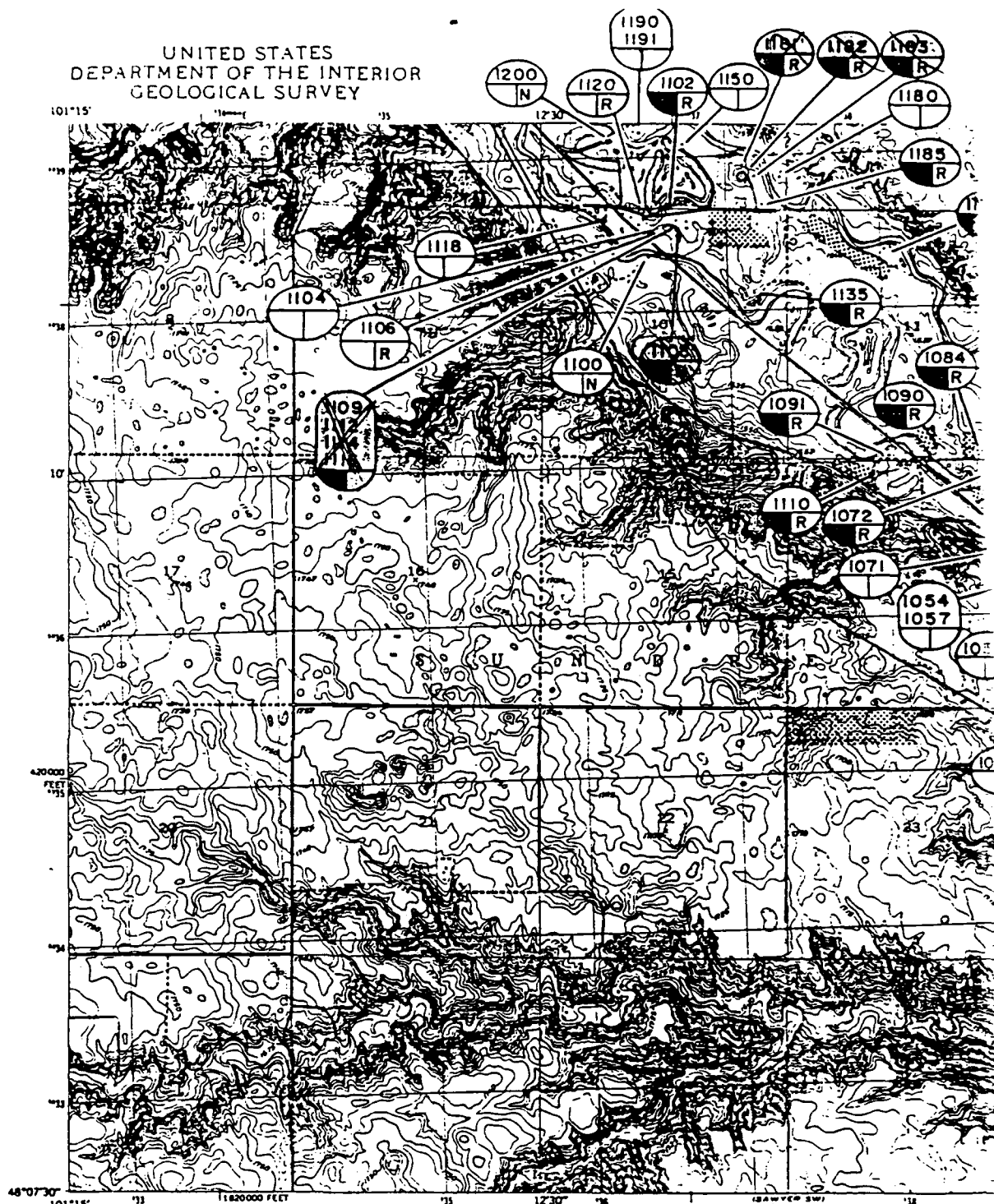
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1:50,000 SCALE
(NORTH 1/2)

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DRAWN BY	D. G.	SOURIS RIVER BASIN		NORTH DAKOTA	
CHECKED BY	J. S.	RURAL IMPROVEMENTS & FLOWAGE EASMENTS			
SUBMITTED BY		APPROVED BY		DATE	
LOCATION MAP		DRAWING NUMBER			
		SHEET 12 OF 24			

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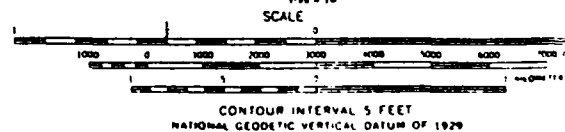
Culture and drainage in part compiled from
aerial photographs taken 1938
Topography by plane-table methods 1948

Polycomic projection
10,000-foot grid based on North Dakota coordinate system
north zone

1000 meter Universal Transverse Mercator grid, zone 14
1927 North American Datum

To place on the projected North American Datum 1983
move the center line 4 meters north and
34 meters east as shown by the dashed corner ticks

Revisions shown in purple and woodland compiled from
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SURREY QUADRANGLE
NORTH DAKOTA WARD CO
75 MINUTE SERIES TOPOGRAPHIC
NW 1/4 SAWYER IS QUADRANGLE

LEGEND:










-  ← FOUR (4) DIGIT IDENTIFICATION NUMBER
-  ← NO RESIDENCE
-  ← ABANDONED RESIDENCE
-  ← NO FLOOD PROTECTION
-  ← ROAD RAISE REQUIRED
-  ← FLOOD PROTECTION REQUIRED
-  ← SPOIL AREA
-  ← BORROW AREA
-  ← SAND & GRAVEL SOURCE

Figure 4

Improvements 0960, 1020R, 1045, 1108, 1109, 1112, 1114, 1116, 1130, 1181-1183



ROAD CLASSIFICATION

- Primary highway, all weather, hard surface
- Secondary highway, all weather, hard surface
- Light duty road, all weather improved surface
- Unimproved road, fair or dry weather
- Interstate Route
- U S Route
- State Route

SURREY, N DAK.
NW 1/4 SAWYER IS QUADRANGLE
N4807 S-W10107 5/7 5
(SOUTH 1/2)
1944

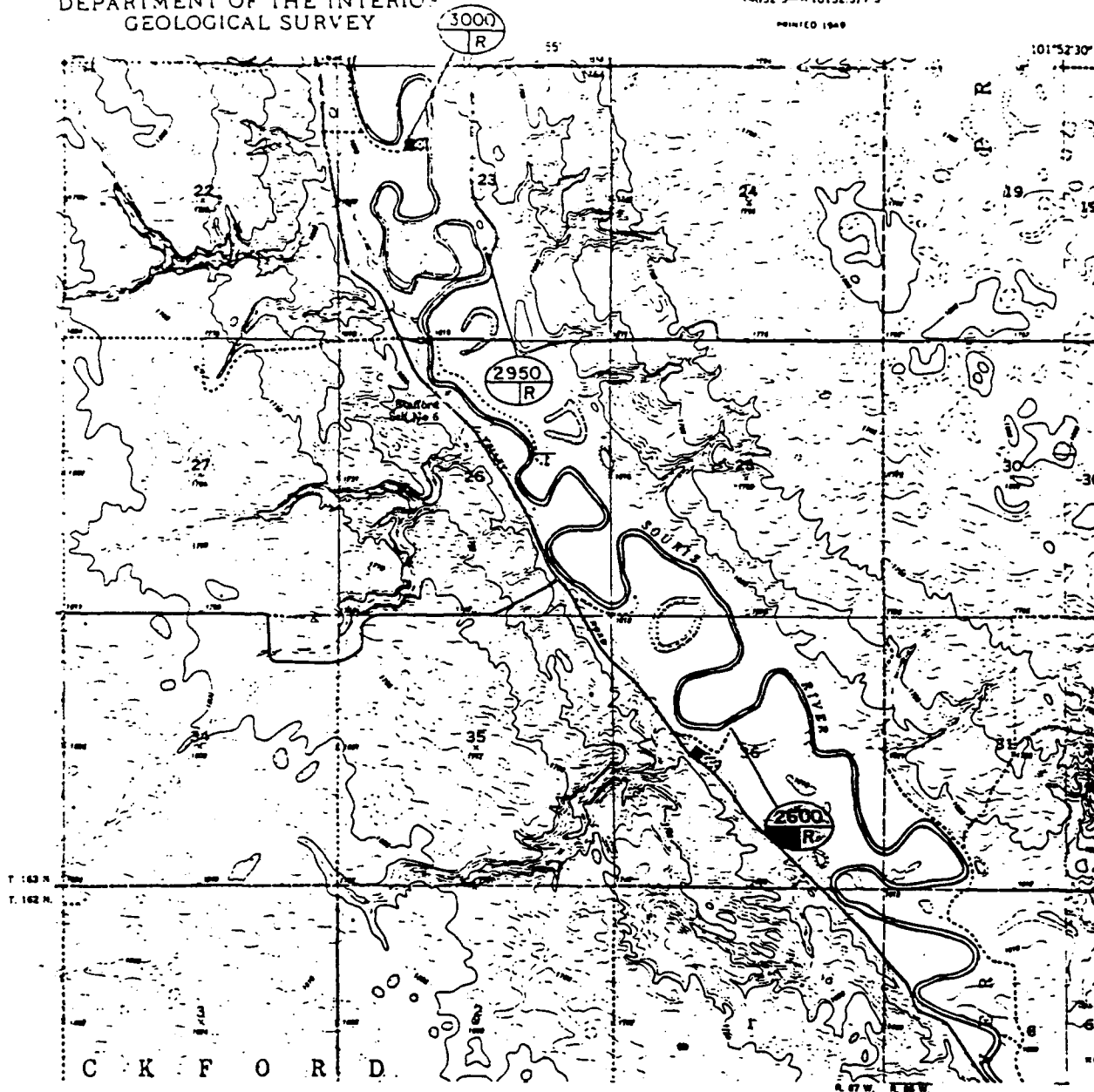
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SUBMITTED BY: _____		DRAWING NUMBER SHEET 13 OF 24	
LOCATION MAP			

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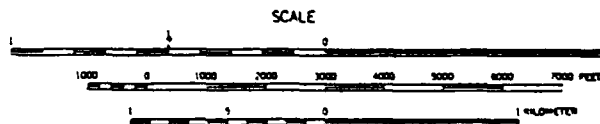


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and by plane-table surveys, 1947
Aerial photographs taken 1946

Polyconic Projection. 1927 North American datum
10 000-foot grid based on North Dakota coordinate system.
North zone

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TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN
DECLINATION, 1947



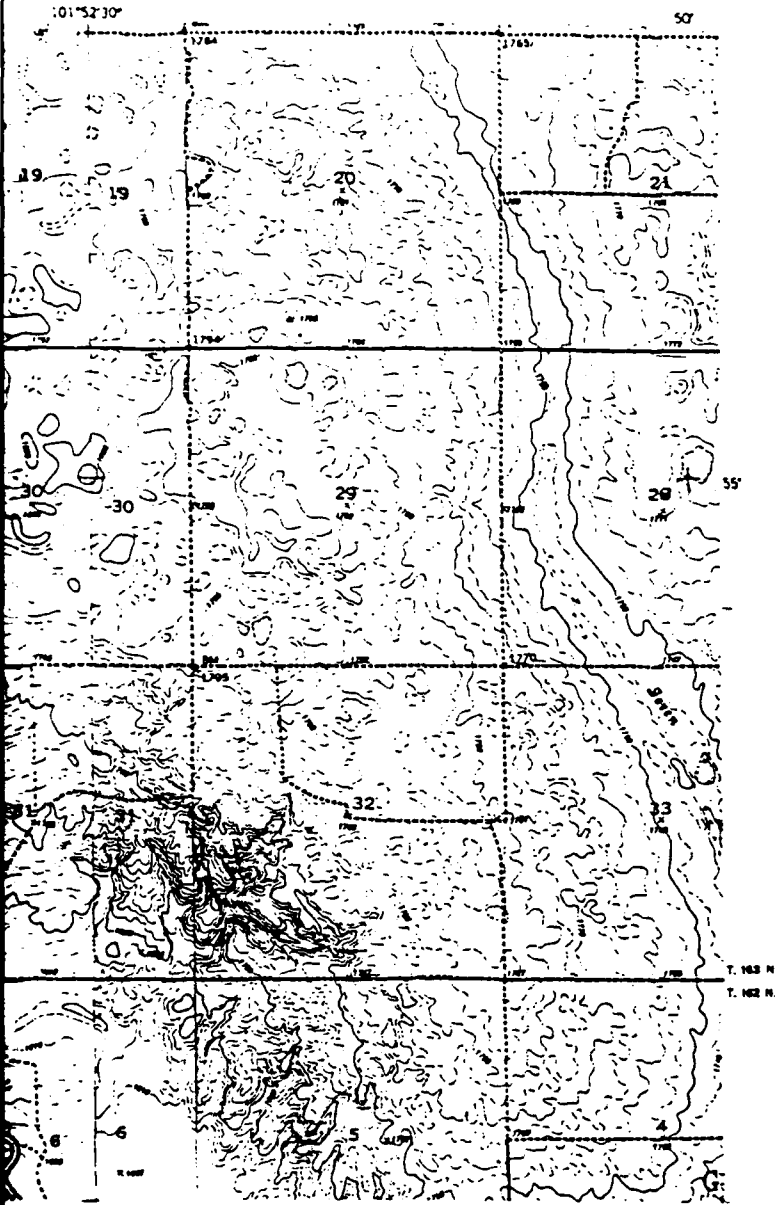
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-  ← ABANDONED RESIDENCE
-  ← NO FLOOD PROTECTION
-  ← ROAD RAISE REQUIRED
-  ← FLOOD PROTECTION REQUIRED
-  ← SPOIL AREA
-  ← BORROW AREA
-  ← SAND & GRAVEL SOURCE

Figure 5

Improvement 2600R



ROAD CLASSIFICATION
HARD-SURFACE ALL WEATHER ROADS DRY WEATHER ROADS
Heavy-duty... CLASSIC LANE Improved dirt...
Medium-duty... CLASSIC LANE Unimproved dirt...
Loose-surface, graded, or narrow hard-surface...
☐ U. S. Route ☐ State Route

MOUSE RIVER PARK N.E., N. DAK.
N4852.5-W10145/75

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CHECKED BY: J.S.	APPROVED BY: _____ DATE: _____		
SUBMITTED BY:	DRAWING NUMBER SHEET 18 OF 24		

2 of 2

Table 1

Reported Site Leads

<u>Description</u>	<u>Location</u>	<u>County</u>	<u>Reported/Date</u>
Lead/Habitation	SE1/4 Sec. 19 T.154N., R.81W.	Ward	Hecker 1938
Lead/Habitation	N1/2NE1/4 Sec. 19 T.154N., R.81W.	Ward	Hecker 1938
Lead/Habitation	S1/2NW1/4 Sec. 2 T.154N., R.82W.	Ward	Hecker 1938
Lead/Habitation	E1/2NW1/4 Sec. 3 T.154N., R.82W.	Ward	Hecker 1938
Lead/Habitation	NW1/4NE1/4 Sec. 3 T.154N., R.82W.	Ward	Hecker 1938
Lead/Habitation	NE1/4SE1/4 Sec. 3 T.154N., R.82W.	Ward	Hecker 1938
Lead/Habitation	E1/2NW1/4 Sec. 10 T.154N., R.82W.	Ward	Hecker 1938
Lead/Habitation	Center SW Sec. 10 T.154N., R.82W.	Ward	Hecker 1938
Logan Post Office and Townsite	NW1/4 NE1/4 Sec. 24 T.154N., R.82W.	Ward	Tweton 1978 REAP
Lead/Habitation	SW1/4NW1/4 Sec. 24 T.154N., R.82W.	Ward	Hecker 1928
Lead/Isolate	NW1/4 Sec. 4 T.154N., R.77W.	McHenry	Museum SHSND
Site Lead	NW1/4 NW1/4 & S1/2 SW1/4 Sec. 36 T.163N., R.87W.	Renville	Hecker 1938
Lead/Stone Circle	NE1/4SW1/4 Sec. 36 T.163N., R.87W.	Renville	Schweigert 1978
Lead/R. Johnson Farm (1892)	SW1/4NE1/4 Sec. 36 T.163N., R.87W.	Renville	Schweigert 1978

Table 2

Previously Recorded Sites

<u>Site #</u>	<u>Location</u>	<u>Type</u>	<u>Recorded/Date</u>
32RV411	SE1/4SW1/4NE1/4 & NW1/4NE1/4 SE1/4 Sec. 36, T.163N., R.87W.	C.M. Scatter	Good UND 1978
32RV412	SE1/4SE1/4- NE1/4SE1/4 Sec. 36, T.163N, R.87W.	C.M. Scatter	Fox UND 1978
32RV439	NW1/4 Sec. 36, T.163N, R.87W.	Fur Trade/ Military Scatter	Schweigert, 1978

The majority of the site leads listed above are from early work done by Thad Hecker for WPA projects in 1938. The work is unpublished and undetailed from his notebooks. The leads are unconfirmed site locations and often in error. Other leads are by Kurt Schweigert in the 1978-79 historical survey of the upper Souris River area by the University of North Dakota. One lead is from the museum division of the State Historical Society of North Dakota (SHSND) reporting an isolated find. One site lead is an historic townsite/postoffice from a literature review by the North Dakota Legislative Council's Regional Environmental Assessment Program (REAP).

All of the recorded sites are within Section 36, T.163N., R.87W., of Renville County. All were recorded during the 1978-79 University of North Dakota inventory of the Upper Souris River area (Good and Fox 1978; Schweigert 1979). Site 32RV411 (Richie Johnson Site) and Site 32RV412 (Myrna Johnson Site) are extensive prehistoric occupations in the fields south of the Johnson farm. Site 32RV439 (Johnson site) is an indefinite area on which has been found large numbers of musket balls, gunflints, various cartridge casings, trade beads, and a brass button marked "U.S.". The site marks a possible location of a winter trading post, according to Schweigert (1979).

A total of six reports relevant to the current project areas are listed in the SHSND files. All are related to the work contracted by the St. Paul District of the COE in conjunction with the proposed Souris River Basin flood control project. The work was conducted from 1975 to 1982.

The earliest report is by Franke (1975). This report details a survey in the NW1/4SE1/4 of Section 3, T.154N., R.82W., involving channel modifications along the Souris River. No cultural resources were reported.

Schneider (1977b) conducted a preliminary field survey and a literature and record search for the Upper Souris River Basin. Five days were spent in the field for preliminary field reconnaissance. The survey is documented by a preliminary survey report and a final report document. Areas involved include Section 36, T.163N., R.87W. in Renville County; Section 19, T.154N., R.82W., and Sections 2, 3, 10, and 24, T.154N., R.82W. in Ward County.

Good and Fox (1978) produced a final report dealing with the archaeological survey of the Lake Darling shoreline and proposed Burlington Dam areas. A preliminary report was also produced for this project by the University of North Dakota (1977). A total of 48 archaeological sites were recorded by this project. Construction areas, borrow areas, the design pool along the shoreline of Lake Darling to 1,620 ft and areas above that would be affected by erosion were inventoried. The sites recorded include 32RV411 and 32RV412.

In conjunction with the above archaeological survey, an historic sites inventory was also undertaken by UND (Schweigert 1978 and 1979). The historic sites survey included all the area affected by the proposed Burlington Dam flood control project. A total of 14 historic sites were recorded, including Site 32RV439.

One other survey was conducted by the University of North Dakota. This involved a proposed river cut off channel located in the NW1/4NW1/4 of Section 19, T.154N., R.81W. in Ward County (UND 1978). The project involved survey of 30 m wide corridor; a disposal area west of the Souris River was also surveyed. Another river cutoff was also surveyed in the NW1/4NW1/4 of Section 24, T.154N., R.82W. of Ward County. No cultural resources were recorded.

The last relevant survey report is the final report of the 1982 survey of the Lake Darling-Souris River project by Powers (Floodman et al. 1985). The project included surveys of the Velva levee, Burlington to Minot levees, the Sawyer levee, and the upper Souris River above Lake Darling. A total of 22 prehistoric sites and 66 historic sites were recorded.

3.0 ENVIRONMENTAL SETTING

The project area lies along the Souris River in north-central North Dakota. The entire course of the Souris River in North Dakota is referred to as the Souris Loop, and is approximately 338 km long. The river heads in Canada, near Weyburn, Saskatchewan, and flows southeasterly into North Dakota. This portion of the river is called the Upper Souris Loop. The river then turns back to the north and re-enters Canada above Westhope, North Dakota. This section is referred to as the Lower Souris Loop. The Souris eventually empties into the Assiniboine River near Tressbank, Manitoba (U.S. Army Corps of Engineers 1978).

The Souris River Valley varies in width from 600 m at the international boundary to 1,500 m at Minot, North Dakota. The valley walls are generally steep and often terraced. The lower floodplain supports a dense stand of hardwood forest interspersed with grassy meadows. Many of these meadows are currently under cultivation. The terraces and mudslope areas maintain mixed prairie grasses and shrubs. The side coulees and draws are heavily wooded. Much of the Upper Souris Valley floor is covered by artificial Lake Darling, which was built in the 1930s. A series of smaller dams along the upper portions of the river maintains marshes, ponds, and wetlands, and is used as the Upper Souris River Wildlife Refuge, under the administration of the U.S. Fish and Wildlife Service (Lemke 1960; Good and Fox 1978).

The following sections will discuss the environmental setting for the project area, including physiography, geology, climate, flora, fauna, eco-zones, and description of the specific project areas.

3.1 PHYSIOGRAPHY

The Souris River Basin is defined to include an area of approximately 24,800 sq. mi (64,232 sq. km). Of this, 15,480 sq. mi (40,093 sq. km) are located in Canada, and 9,320 sq. mi (24,139 sq. km) are in the United States. In North Dakota, the Souris River runs through Renville, Ward, McHenry, and Bottineau Counties. It is considered to lie within the Drift Prairie section of the Central Lowland physiographic province (U.S. Army Corps of Engineers 1978). According to Bluemle (1977), the Central Lowlands is a term which refers to vegetation, not geology, and means that the area was once covered by tall grass prairie, prior to settlement. Bluemle (1977) places the Souris River Basin within what he calls the Glaciated Plains. This is a rolling region of glacial deposits, extending southward from the Pembina Escarpment to the Missouri Escarpment. Elevations in the Glacial Plains average about 1,500 ft (450 m) above sea level. Four major topographic features subdivide the Souris River Basin: 1) the Missouri Escarpment, 2) the ground-moraine plain, 3) the bed of glacial Lake Souris, and 4) the southwest portion of the Turtle Mountains (Figure 6).

The westernmost part of the Central Lowlands is a 20 to 50 mi (50 to 80 km) wide strip known as the Missouri Coteau. The Missouri Coteau is a hummocky area where glacial stagnation occurred, and separates the Central Lowlands on the east, from the Great Plains on the west (Bluemle 1977). The Coteau stands approximately 400 ft (122 m) above the ground-moraine plain on the northeast. Separating the two areas is the Missouri Escarpment, which is a gentle slope from the higher elevations of the Coteau to the lower ground-moraine plain (U.S. Army Corps of Engineers 1978).

The ground-moraine plain (or Glaciated Plains) extends from the Missouri Coteau to the ancient bed of glacial Lake Souris. The plain is undulating with numerous low, rounded mounds, undrained depressions, and elongated ridges. Local relief is generally less than 30 ft (9.1 m) and in places less than 10 ft (3 m) (U.S. Army Corps of Engineers 1978). The entire length of the Des Lacs River Valley and portions of the Souris River Valley, upstream from Verendrye, North Dakota, lie in the area of the ground-moraine plain. These river valleys are more deeply entrenched than the rest of the plain.

The bed of glacial Lake Souris is found in the east central portion of the Souris River Basin, downstream from Verendrye. This feature, which varies significantly from the ground-moraine plain, is some 80 mi (129 km) long and up to 50 mi (81 km) wide and was formed when glacial meltwaters were dammed by a receding ice mass. The surface of glacial Lake Souris is essentially flat, except for occasional sand dunes and numerous depressions (U.S. Army Corps of Engineers 1978).

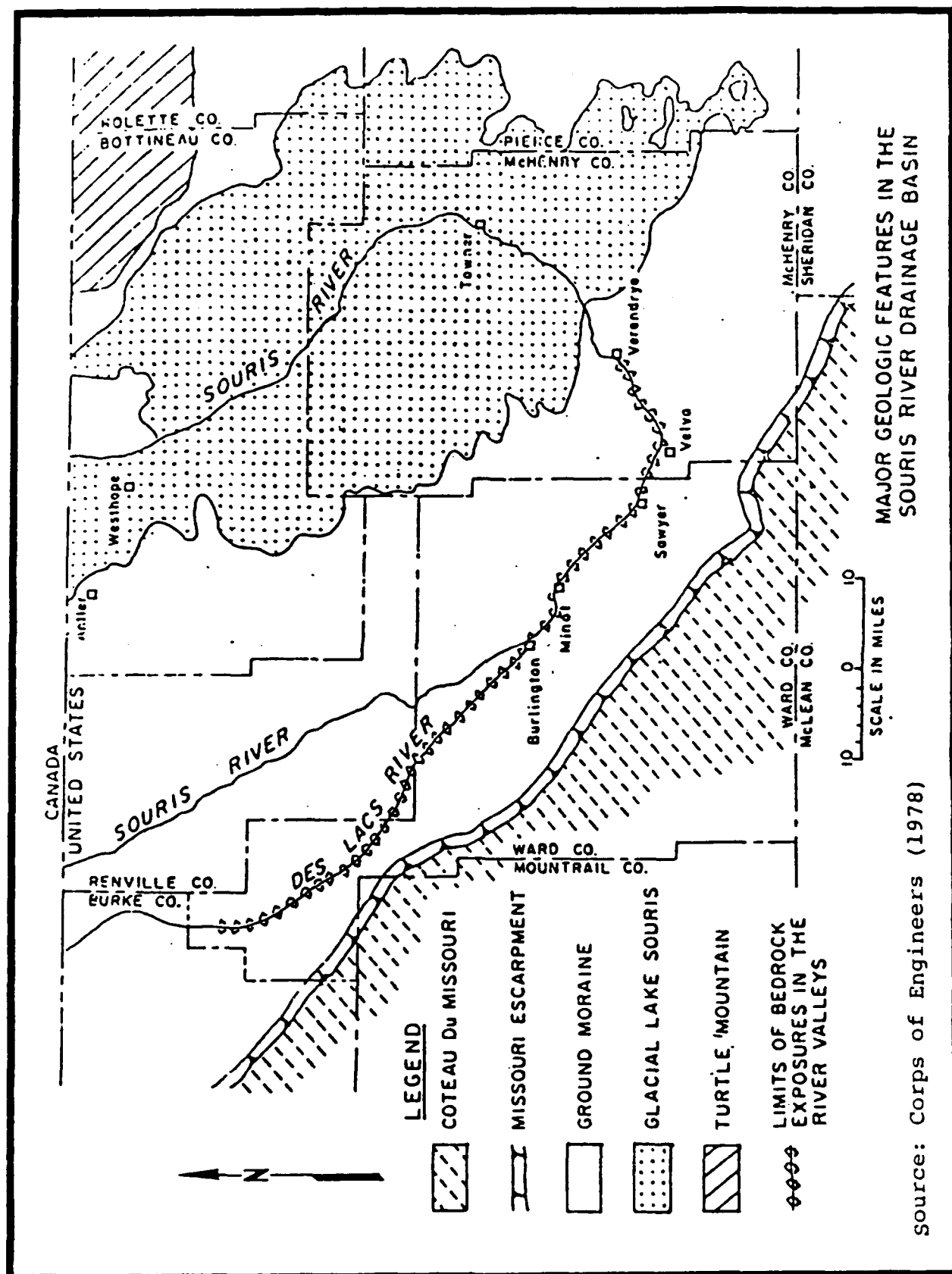


Figure 6

Part of the Turtle Mountains occupies the extreme northeast corner of the basin. These mountains are an erosional outlier of the Missouri Coteau, and rise about 400 ft (122 m) above the plain.

The areas of the current project are located along the Upper Souris Loop, in a region dominated by ground-moraine plain. The Upper Souris River Valley lies in stark contrast to the surrounding plain. This valley was cut when the river was swollen by large amounts of glacial meltwater and was subsequently aggraded to its present level after the last glaciers receded from the area. Thus, the Upper Souris has the appearance of being a small stream in an oversize valley. The Souris River lies about 100 to 200 ft (30.5 to 61 m) below the ground-moraine plain with steep-sided valley walls. The valley floor averages three-quarters of a mile in width and forms a relatively flat surface cut by the sinuous river channel, meander scars, and small alluvial fans (Lemke 1960; U.S. Army Corps of Engineers 1978).

3.2 GEOLOGY

The western two-thirds of North Dakota, along with parts of southwestern Manitoba, southeastern Saskatchewan, eastern Montana, and northwestern South Dakota is included within a feature known as the Williston Basin, which is both a structural and sedimentary basin. The basin was shaped in Cretaceous times, and the accumulation of sedimentary rocks in the basin cover the crystalline Precambrian rocks by at least 16,000 ft (4,800 m) near the basin's center. The regional slope of the sedimentary rocks at the center of the Williston Basin averages about 60 ft in a mile (10 m in 1 km), or less than one degree. It is interrupted by small geologic structures in many places. Folds in the sedimentary rocks have resulted in fault lines and anticlines, such as the Nesson Anticline in northwestern North Dakota. In places, salt in rocks of Paleozoic and Mesozoic age have dissolved, resulting in the collapse of such salt beds (Bluemler 1977).

Two kinds of sedimentary deposits are found in North Dakota; bedrock and glacial sediment (Bluemler 1977). Bedrock units exposed or forming the buried pre-glacial topography of the Souris River Basin consist, in descending order, of the Sentinel Butte, Tongue River, and Cannonball Formations of the Fort Union Group of the Tertiary system, and the Hell Creek and Fox Hills Formations of the Cretaceous system. Older Mesozoic and Paleozoic beds underlie these formations (U.S. Army Corps of Engineers 1978).

The dominant features within the Souris River Valley and the surrounding plains are primarily the result of Pleistocene glacial advances. Glaciers moved through the Souris region several times during the Pleistocene, but the most significant

advance was the Mankato Substage of the Wisconsin glaciation. It was this glacial advance which accounts for most of the current topography in the area, obscuring pre-glacial features (Lemke 1960; U.S. Army Corps of Engineers 1978).

The existing Souris River Valley was entrenched into the ground-moraine by glacial meltwater as the Mankato ice sheet retreated northward. Originally the meltwaters discharged southeastward into glacial Lake Souris. As the ice within the Lower Souris Loop melted, the flow was left unimpeded northward, and the meltwaters gradually drained into Canada (Lemke 1960; Good and Fox 1978).

The unconsolidated surface deposits in the river valley consist either of Pleistocene glacial deposits or recent alluvium. The recent alluvium comprises only a small portion of the total surface deposits, and is found almost entirely within the river bottoms. Recent river alluvium consists of clays, sands, silts, and minor amounts of coarse sand and gravel. In the river valley these deposits usually exceed 30 ft (9 m) in depth (Lemke 1960; U.S. Army Corps of Engineers 1978).

Within the Souris River Basin the glacial materials consist primarily of ground-moraine and sediments from glacial Lake Souris. Ground-moraine is a moderate amount of till that was deposited at the base of a moving glacier and by collapse from within the glacier as it melted, which formed a gently rolling landscape (Bluemler 1977). The ground-moraine consists of impervious stony clay till with thin lenses of sand and gravel. This material varies in thickness between 50 to 300 ft (15 to 91 m) on the Glaciated Plains. Within the river valley the thickness of the ground-moraine is usually less than 50 ft (15 m) due to meltwater erosion. The deposits of glacial Lake Souris range in thickness to about 70 ft (21 m) and are predominantly silt with moderate to poorly graded sand, with sand and gravel beaches near the ancient shoreline (U.S. Army Corps of Engineers 1978).

Soils in the Souris River Basin are developed on parent materials of glacial sediments, recent alluvium, and to a small extent, on outcrops of the Tongue River formation. Upstream from Minot, North Dakota the dominant soils are the Barnes-Seva, Barnes and Williams-Bowbells associations which are brown to black in color, and consist of loamy, moderate to well drained soils developed on glacial till. There are also the Zahl-Max-Williams-Velva association which are well-drained loamy soils formed on till and valley alluvium (COE 1978).

3.3 CLIMATE

The Souris River Basin exhibits a northern continental climate characterized by extreme temperature variation; long cold winters and short warm growing seasons, with erratic precipitation.

Temperatures have varied from a low of -54°F to a high of 114°F. The mean annual temperature is 39°F. The annual precipitation averages 15.5 inches, of which 75% falls between late April and August, during the growing season. Average annual snowfall is 33 inches, or approximately 21% of the yearly average precipitation. During winter the prevailing winds are northwesterly, while in the summer southerly winds prevail (COE 1978).

Limited seasonal rainfall has favored the accumulation of organic materials in the soils, as have cool temperatures. Rainfall is not sufficient to leach the soil of nutrients or to cause substantial soil erosion. On the Glaciated Plains conditions have been favorable to the growth of prairie vegetation. Near the river, where the effect of rainfall variation is less critical, the climate is favorable for maintaining tall grasses and hardwood forest (Thiele et al. 1977; Good and Fox 1978).

3.4 FLORA AND FAUNA

The floral communities of the Upper Souris River Valley have been discussed extensively in Kuchler (1964), Lautenschlager (1964), Burgess et al. (1973), and the U.S. Army Corps of Engineers (1978). These studies have been aptly summarized in Good and Fox (1978) and will be only briefly dealt with below.

The dominant vegetation unit in the study area closely corresponds to Kuchler's (1964) Northern Floodplain Forest, characterized by Populus-Salix-Ulmus. Elements of the Oak Savanna (Quercus-Andropogon) vegetation unit are also present. Bur oak (Q. macrocarpa) occurs in the wooded side coulees. Big and little bluestem (Andropogon gerardi) and (A. scoparius) are also frequently interspersed in forested areas. Floodplain forests usually are spread out in a thin belt, up to about one half mile wide in places, connecting intermittent one to 25 acre wooded patches which lie within oxbow meanders along the river.

Low bottom species of the valley floor include American elm (Ulmus americanus), green ash (Fraxinus pennsylvanica), box elder (Acer negundo), and cottonwood (Populus spp.) Also present are black willow (Salix lutea) and western wildrose (Rosa woodsii). High bottom species cluster along the coulees adjacent to the river, and are dominated by wheatgrasses Agropyron spp., and grama grasses Bouteloua-spp. Low bottom areas in or near oxbows are interspersed through the floodplain forest, are not usually conducive to agriculture, and contain reeds (Calamagrostis inexpansa and Calmovilfa longifolia), blue gramma (Bouteloua gracilis), prairie cordgrass (Spartina pectinata) and sedges (Cares spp.). Other bottom areas may be converted to wild hay and used as pasture land.

The surrounding upland prairie maintains a wheatgrass-bluestem-needlegrass community (Agropyron-Andropogon-Stipa). Other common species of the prairie include Echinacea, Psoralea, and Solidago. The floral assemblage helps provide a suitable habitat for a variety of faunal species. Smaller mammals include ground squirrel (Citellus richardsoni) and jack rabbit (Lepus townsendii). Varieties of rodents (Peromyscus, Microtis) are also present. Semi-aquatic species such as mink (Mustela vison), beaver (Castor canadensis), and muskrat (Ondatra zibethicus) are common.

Predators include red fox (Vulpes vulpes), longtailed weasel (Mustela frevata) and coyote (Canis latrans). Larger mammals, such as white-tailed deer (Odocoileus virginianus) and pronghorn antelope (Antilocapra americana), inhabit the area. Formerly, mule deer (Odocoileus hemionus), elk (Cervus canadensis), grizzly bear (Ursus horribilis), and bison (bison bison) were once common. Other large game which may have once been present include bighorn sheep (Ovis canadensis), moose (Aces americanus), and caribou (Rangifer caribou) (Bailey 1926; Good and Fox 1978).

Waterfowl is plentiful within the Upper Souris Wildlife Refuge, and includes American coot, Canada goose, snow goose, mallard, gadwell, American widgeon, green-winged teal, blue-winged teal, northern shoveler, pintail, wood duck, redhead, canvasback, lesser scarp, and ruddy duck, to name a few. Other avian species noted in significant number at the refuge include western grebe, eared grebe, pied-billed grebe, ring-billed gull, Franklin's gull, double-crested cormorant, white pelican, great blue heron, American avocet, willet, killdeer, marsh hawk, and great horned owl. Upland game birds include gray partridge, sharp-tailed grouse, and ring-necked pheasant (U.S. Army Corps of Engineers 1978).

Fish species found in Lake Darling and the Souris and Dec Lacs Rivers are similar to those found in the Midwest, with one notable exception. Carp are not present. However, 24 other fish species have been identified for the Upper Souris, and include northern pike, fathead minnow, white sucker, black and brown bullhead, yellow perch, and walleye (U.S. Army Corps of Engineers 1978).

4.0 CULTURAL BACKGROUND

The following section will present a regional culture history of the project area, covering the prehistoric period. This will serve as the chronological-historical framework for the interpretation and identification of the cultural resources located within the project area.

4.1 THE EARLY PREHISTORIC PERIOD

Although there is no way to determine how long man has been in the New World, most archaeologists believe that 15,000 years ago is a reasonable beginning. Populations are speculated to have crossed the Bering land bridge and migrated south. The physical evidence for the human occupation of the Great Plains is tied to artifacts which date back 12,000 years. This early occupation is referred to as the Paleoindian stage and is dominated by what Willey (1966) calls the Big Game Hunting Tradition. This is an adaptation to the grassland environment of the Late Pleistocene, and sites from this period are characterized by large lanceolate points used to kill megafauna, such as mammoth and extinct forms of bison. The best known Paleoindian complexes are the Clovis, Folsom, and Plano cultures. The Dent site, in north-central Colorado, is a Clovis mammoth kill dated to around 9300 B.C. The Lindenmeier site in northern Colorado and the Brewster and Hanson sites in Wyoming represent Folsom localities on the Northern Plains which have been radiocarbon dated from 8900 to 8130 B.C. The Plano cultures on the Plains included Agate Basin, dated to 8480 B.C. at the type site; Hell Gap, dated to 8110 B.C. at the Casper site and 7650 B.C. at Sister's Hill, Wyoming; Alberta dated to about 6640 B.C. at the Hell Gap site; and the Cody complex, with dates ranging from 7076 B.C. at Finley, Wyoming to 5930 B.C. at the Horner site (Frison 1978).

There has been little concrete evidence of Paleoindian remains found around the project area. Schneider (1982) reported that most Paleoindian artifacts found in North Dakota come from the region west of the Missouri Coteau. The Moe Site (32MN101), on the bank of Lake Sakakawea, near New Town, is one of the first documented Paleoindian occupations found in North Dakota; a large collection of artifacts was recorded from the eroding bank. In 1973 and 1974 the University of North Dakota conducted excavations at the site, but did not find remains of the Paleoindian occupation. This was thought to be the result of the riverbank eroding into the reservoir (Schneider 1975). Paleoindian projectile points collected from the site included Clovis, Folsom, Plainview, Milnesand, Agate Basin, Angostura-Lusk-Frederick, and Scottsbluff forms. More recently, excavated Paleoindian remains have been discovered in the Knife River flint quarries area of Dunn County, North Dakota. At site 32DU452 Scottsbluff points were found in levels radiocarbon dated between ca. 7370 and 6050 B.C. (Root et al. 1986).

In the collections of the State Historical Society of North Dakota are 14 specimens which were acquired by Thad Hecker, supposedly from the Souris Basin, and accessioned in 1942 (Schneider 1982). Unfortunately, there is no locational data with these specimens, and no way to document the sites from which they came. In the hands of private collectors in the Upper Souris region are also some Paleoindian projectile points. A Scottsbluff type was reported from the vicinity of the project area (Curtis Ones, personal communication). Richard Johnson has

a collection which included Clovis, Folsom, Eden, and Agate Basin point types, most of which are from the vicinity of New Town (Floodman et al. 1985). Schneider (1982) calculated that 77% of the recorded Paleoindian points in North Dakota are made of Knife River flint (KRF). The Johnson Paleo collection shows a similar preference for this material.

4.2 THE MIDDLE PREHISTORIC PERIOD

The next cultural stage is often referred to as the Archaic period, which developed at the end of the Pleistocene as the megafauna became extinct and people adapted to a more varied hunting and gathering subsistence pattern. The Archaic stage is typified by the appearance of site-notched, stemmed, and indented-base projectile point forms. These tend to be smaller than Paleo points, and were probably related to the increased use of the atlatl. Frison (1978) corresponds his Early Plains Archaic period with the arid climatic episode Antevs (1955) called the Altithermal. While some archaeologists have postulated that the Altithermal resulted in a cultural hiatus on the plains (Mulloy 1958), others, such as Reeves (1973), have argued that the real evidence to support this theory is lacking.

Frison's (1978) Early Plains Archaic is roughly equivalent to Reeves' (1973) Early Middle Prehistoric Period. This period dates back as far as 5680 B.C. according to evidence from Mummy Cave in Wyoming. Reeves (1973) defined the earliest cultural tradition from this period as the Mummy Cave complex, containing Bitterroot and Salmon River Side Notched projectile point types. Sites on the Northeastern Plains which have yielded materials assigned to this complex include the Itasca bison kill in western Minnesota and Swan River in Manitoba.

The end of the Early Middle Prehistoric Period is marked by the appearance of the Oxbow complex. This cultural complex is named after a distinctive point type first described from excavations at the Oxbow site on the Souris River in Saskatchewan, radiocarbon dated as early as 3250 B.C. (Nero and McCorquodale 1958). The Oxbow complex was also found at Long Creek, a site on a tributary of the Souris River in Saskatchewan (Wettlaufer and Mayer-Oakes 1960). Reeves (1973) has noted that early Oxbow components resemble Bitterroot and Salmon River types, indicating that it probably developed out of the Mummy Cave complex between 5500 and 3000 B.C. Later Oxbow components, dated between 3000 and 1500 B.C., however, are often found in association with the McKean complex.

The appearance of the McKean Complex on the High Plains, typified by the McKean, Duncan, and Hanna projectile point styles, has been used by Frison (1978) to mark the beginning of what he calls the Middle Plains Archaic cultural period. At Angostura Reservoir in South Dakota the McKean complex has been dated to 2280 B.C. (Wheeler 1958). In southeastern Manitoba, MacNeish

(1958) used the discovery of McKean point types at Lockport and Cemetery Point to define a cultural complex called the Whiteshell Focus, dated from ca. 3000 to 1500 B.C.

The archaeological evidence for a late Early Middle Prehistoric occupation in the Souris River Basin is strong. Oxbow and McKean components were discovered at the Cherry Point site and in the Nash survey area in southwestern Manitoba (Fox 1982). Schneider (1977b) postulated that it was during the Middle Archaic period that the habitation of western North Dakota may have reached its peak, in terms of the number of archaeological sites occupied. Local collectors in the Upper Souris River project area have artifacts dating to this period. An Oxbow projectile point was found at site 32RV3 during the 1982 Powers survey (Floodman et al. 1985).

On the Northern Plains, McKean points were replaced by a new type, a corner-notched style called Pelican Lake, which Frison (1978) uses to mark the beginning of the Late Plains Archaic period. Pelican Lake is a bison hunting cultural complex first defined by Wettlaufer (1955) from evidence at the Mortlach site in Saskatchewan. Reeves (1983b) believes that Pelican Lake ushered in what he refers to as the Late Middle Prehistoric Period. At the Head-Smashed-in site in Alberta the Pelican Lake cultural strata were radiocarbon dated from 1090 B.C. to A.D. 25 (Reeves 1983a).

Also at the Mortlach site, Wettlaufer (1955) identified a culture known as Besant, post-dating Pelican Lake. This is an extremely sophisticated bison hunting complex typified by a large side-notched dart point. The Ruby site in the Powder River Basin of Northeastern Wyoming was a Besant occupation radiocarbon dated between A.D. 150 to 280, with evidence of a bison entrapment corral and ceremonial structure (Frison 1978). In western North Dakota, at site 32MZ333, a cultural horizon was discovered containing a Besant projectile point in association with Woodland style ceramics and radiocarbon dated to between 91 B.C. and A.D. 60 (Floodman et al. 1983). Johnson (1977) argues convincingly that Besant should be considered a phase within the broad Plains Woodland cultural tradition.

In the Northeastern Plains region, the Woodland tradition (Willey 1966) overlaps with the end of the Late Plains Archaic and the beginning of the Late Prehistoric Period. According to Schneider (1977b), the Woodland stage is primarily noted for the appearance of pottery, the construction of burial mounds, and the presence of projectile points which include Pelican Lake, Besant, and Avonlea. In southeastern Manitoba, McNeish (1958) first associated pottery with the Anderson focus, which he estimated dated from ca. 500 B.C. to A.D. 500, based on its similarities to the Hopewellian cultures of the Mississippi Valley. This was followed by the Nutimik focus, supposedly dating from ca. A.D. 500 to 1000, because of its connections with the Besant cultural complex.

Syms (1977) has described the first Woodland cultures on the Northeastern Plains under the term Orleans composite, which includes materials identified on the basis of pottery as the Valley, Keith, Ash Hollow, and Sonota complexes. The Sonota complex was defined by Neuman (1975) from mortuary mound sites in the Dakotas as containing tool assemblages dominated by Knife River flint, having a distinctive corner-notched projectile point which subsumes Besant, emphasizing the use of bison, having small burial mounds with bundle burials, and containing a distinctive ceramic style. Dates for Sonota sites cluster between 100 B.C. and A.D. 1000. The complex includes the Richards kill and the Richards village sites in Manitoba, and the Walter Felt and Muhlbach bison kills in Saskatchewan and Alberta (Syms 1977).

A Sonota-like burial chamber was excavated near Jamestown by the State Historical Society of North Dakota in 1982. Two burial mounds and a nearby campsite were examined during the project. Mound A was radiocarbon dated to A.D. 440, while Mound B was found to date to about A.D. 750. Both contained multiple burials and several different mortuary practices were in evidence. The campsite contained a large quantity of ceramics and projectile points spanning from A.D. 1 to 1600 (Snortland-Coles 1985).

4.3 THE LATE PREHISTORIC PERIOD

The beginning of the Late Prehistoric period is usually tied to changes related to the introduction of the bow and arrow. One early Late Prehistoric cultural complex is called Avonlea, and is characterized by a small, triangular side-notched projectile point. The Avonlea complex was first described by Kehoe and McCorquodale (1961) based on a bison drive site in Saskatchewan. The earliest dates for Avonlea come from Head-Smashed-In, where it begins about A.D. 150-250 (Reeves 1983a). Ceramics are now well documented for the Avonlea culture, such as those found at the Goheen site in Montana (Fraley and Johnson 1981).

Reeves (1983b) claims that in Manitoba the Avonlea complex was replaced by the Blackduck culture around A.D. 700. MacNeish (1958) placed Blackduck within what he called the Manitoba focus, dated from ca. A.D. 1000 to 1350. In Billings County, North Dakota Blackduck ceramics were found in association with a hearth feature radiocarbon dated to A.D. 235 at the Magpie Road Site (Campbell et al. 1983).

In the Middle Missouri region the first Plains Village cultures are roughly contemporaneous with the Late Woodland period of the eastern forests. The Initial Middle Missouri variant of the Middle Missouri tradition first appeared around A.D. 900, perhaps as a migration of people from southwestern Minnesota and northwestern Iowa. Initial Middle Missouri sites cluster in the Big Bend region, along the Missouri River from the White River to the Cheyenne River in South Dakota. The presence of

projectile points resembling Avonlea at Initial Middle Missouri variant sites indicates contact between the more settled village people of the Missouri River Valley and the more nomadic Late Prehistoric cultures of the Northern Plains (Lehmer 1971).

The Extended Middle Missouri variant appeared about A.D. 1100, with a northern expression along the Missouri River in the Knife-Heart and Cannonball subregions of North Dakota and a southern grouping of sites in the Bad-Cheyenne subregion of South Dakota. During the period from A.D. 1250 to 1450 the southern Extended Middle Missouri variant sites were abandoned. The existence of fortifications at contemporary Initial and Extended Middle Missouri villages indicates there were conflicts when the Extended Middle Missouri people in North Dakota began to push down into the Bad-Cheyenne subregion after A.D. 1100 and came into contact with the previously established Initial Middle Missouri culture in South Dakota. The Initial Middle Missouri complex faded out around A.D. 1300, while the Extended Middle Missouri variant appears to have lasted to A.D. 1550, with a hiatus between A.D. 1250 and 1450 (Lehmer 1971).

The Coalescent tradition in the Middle Missouri region began about A.D. 1400 with the appearance of the Initial Coalescent variant. This cultural complex is thought to be an outgrowth of the Central Plains tradition, perhaps representing a migration of people from the Central Plains to the Missouri River Valley. Initial Coalescent sites are concentrated in the Big Bend subregion of South Dakota. Around A.D. 1550 it seems that the culture evolved into what is called the Extended Coalescent variant, with a geographic distribution from the White River to the North Dakota border. Coexistent with the Extended Coalescent was the Terminal Middle Missouri variant, which expressed itself in the Cannonball and Knife-Heart subregions of North Dakota between A.D. 1550-1675 (Lehmer 1971).

Syms (1977) pointed out similarities between Middle Missouri ceramics and potsherds found at sites in southern Manitoba. Joyes (1969) reported Fort Yates ware, an Extended Middle Missouri variant ceramic style, recovered from a site in the Pembina Valley. Middle Missouri pottery has also been documented along the Souris River (Fox 1982).

Contemporaneous with the development of Plains Village culture on the Middle Missouri was the persistence of various buried mound complexes on the Northeastern Plains during the Late Plains Woodland/Late Prehistoric period. These mounds are located in groups along the James River, around Devils Lake, and on the Souris River. Archaeologists since Montgomery (1906, 1908) have speculated about the origins of these mounds. Wedel (1961) suggested that they can be correlated with the diffusion of Siouan people from the Upper Mississippi River Valley westward. He felt the ceramics from these mounds showed characteristics similar to Blackduck ware.

Syms (1977) has identified the Devils Lake-Sourisford Burial complex as a series of conical burial mounds found in northern North Dakota, southern Manitoba, and southeastern Saskatchewan. Sites falling into this complex include the Reston burial, and the Fetland Site, which is located on the South Antler River near the North Dakota-Canadian border. A temporal range of A.D. 1000 to 1600 is given for this complex, and Syms suggests that certain traits appear similar to both the Arvilla Burial complex of the Red River Valley and Oneota, a Late Woodland manifestation of the Mississippi River Valley.

Also contemporaneous with the Plains Village cultures of the Middle Missouri were a group of ceramic making cultures identified in Canada. For example, the upper levels at Mortlach and Long Creek in southern Saskatchewan, along with components from Shippe Canyon in northern Montana, and the Cherry Point site in southwestern Manitoba have been grouped together as the Mortlach complex (Syms 1977). Pottery from this complex is characterized by a dominance of plain and check-stamped surface finishes. Associated tools include late side-notched projectile point styles. The Mortlach complex level at the Morkin Site yielded a radiocarbon date of A.D. 1700 and the presence of European trade goods at other sites containing this complex indicates it was a protohistoric-historic period culture. Other Late Woodland ceramic complexes from the southern Canadian Plains include the Selkirk horizon, defined in Saskatchewan from fabric impressed finishings on pottery, the Saskatchewan Basin sequence known from the Morkin Site, and the Cluny complex, a protohistoric manifestation identified at the Cluny Site in Alberta. Pottery found on the Souris River may be related to the Late Woodland ceramic-making cultures of southern Canada.

The end of the Late Prehistoric period on the Northern Plains is characterized by small side-notched arrow points, such as those included in the Old Woman's complex at Head-Smashed-In and dated from A.D. 850 to 1800 (Reeves 1983a). This phase is thought to represent the predecessors of the Piegan tribe. Syms (1977) believes that the Mortlach complex is related to the protohistoric Hidatsa or Crow, while the Selkirk horizon may be ancestral to the Cree and the Blackduck horizon is associated with Algonquian groups.

In the Middle Missouri region Lehmer (1971) classified the protohistoric cultures under the term Post-Contact Coalescent. The Heart River phase of this variant is identified as the beginning of the Mandan and Hidatsa tribes. In South Dakota, the Felicia, Talking Crow, and Bad River phases are related to the protohistoric Arikara. The Disorganized Coalescent variant is roughly equivalent to the start of the historic period, from A.D. 1780 to 1862. First, the Mandan and Hidatsa congregated in villages along the Knife River, and then they were later joined by the Arikara at Like-a-Fishhook Village, near present-day Garrison, North Dakota (Smith 1972).

5.0 THEORETICAL AND METHODOLOGICAL OVERVIEW

The primary goal of the COE in initiating and administering the Phase I archaeological investigation of the Souris River Basin rural improvements is to partially fulfill its obligations regarding cultural resources as set forth in the National Historic Preservation Act of 1966 (PL 89-665) as amended; the National Environmental Policy Act of 1969 (PL 91-190); Executive Order 11593: the Advisory Council on Historic Preservation "Regulations for the Protection of Historic and Cultural Properties" (36 CFR Part 800); and the application of COE regulations (ER-1105-2-50). The project inventory and report can also serve as a planning tool, identifying resources requiring additional investigations, or with the potential for public use development, and serve as a scholarly document for further future research (U.S. Army Corps of Engineers 1988).

The objectives of Powers in undertaking the inventory were the identification of prehistoric cultural resources within the proposed project area, their evaluation in terms of potential criteria for nomination to National Register of Historic Places (NRHP) as set forth in 36 CFR Part 60.4, and the assessment of potential adverse effects caused by the project on any significant sites. A theoretical concern was to provide an intellectual framework for the proper interpretation and evaluation of cultural resources located in the project area.

The project consists of several small scale surveys located along the Souris River. The surveys are located around existing historic structures and farming residences. The areas were expected to be disturbed by the living activities at the historic sites. Associated prehistoric site occupations would, therefore, be previously impacted to varying degrees and possibly destroyed. An added factor is the ability to identify these sites due to the construction, fill, and creation of lawns, roads, drives, and other impacts to the area.

A cultural chronology of the prehistoric occupation of the Souris River area was presented briefly in Section 4.0. Recent work in the Souris River Valley by Powers has provided some insight into the types of sites which can be expected (Floodman et al. 1985; Floodman and Friedman 1986).

Evidence of occupations within the Early Prehistoric period have been found in the Souris River area. Most notably, the collection of Richard Johnson (Section 36, T.163N., R.87W.) included Paleoindian artifacts, but most came from the Missouri Plateau region. Since the current survey is on lower floodplain areas of the river valley, artifacts and sites relating to this period are not expected.

More intensive utilization of the Souris River Valley appears to have begun in the Middle Prehistoric period. While evidence for

the occupations from this period are present, the site density and numbers of documented projectile points from this period is relatively sparse.

The greatest number of sites can be related to the Late Prehistoric period. From about A.D. 1100 onward to the historic era, there is evidence of several different cultural groups inhabiting the Souris River Valley. Late Prehistoric occupation is highlighted by a number of cultures coming to the area from differing directions. This is reflected in the diversity of ceramic wares present. Evidence of both Middle Missouri and Coalescent style ceramics have been identified. However, the bulk of the ceramics are unclassified and are related to a number of sites from the southern Canadian plains which display similar characteristics (Floodman and Friedman 1986).

In terms of site types, most of the recorded sites from the valley floor are cultural material scatters and open occupation type sites. They are often found in cultivated fields where surface visibility improves from the Floodplain Forest. Stone circle sites are common, but are found primarily on the terraced grasslands overlooking the valley floor. Since most of the areas to be surveyed are found in lower areas of the floodplain, cultural material scatters would most likely be the type of site to be found.

The research objectives of Powers is aimed at locating, identifying, and evaluating the cultural resources in the project area. Specifically, Powers attempted to determine the temporal and cultural affiliation of each site, and relate that to previously known data. Each site's function and activities were noted to the degree possible and generalizations on site types and environmental locations were sought.

After formulating the research objectives and conducting the files search, the project area was inventoried by conducting an intensive pedestrian survey and recording all prehistoric cultural resources observed. Sites were defined as more than two cultural artifacts in close proximity, or the presence of a cultural feature. Isolated finds were defined as single artifacts lacking other associations. The kinds of data gathered include the number and types of resources present, site size, location, features, artifacts, cultural and temporal associations, and inferred functions.

6.0 GENERAL PROJECT METHODOLOGIES

The Phase I archaeological survey of the Souris River Basin Project Rural Improvements consisted of an intensive, on-the-ground investigation of an area sufficient to determine the number and extent of the prehistoric resources present and their relationships to the proposed project construction features. The inventory was designed to meet the specifications and

requirements stated in the scope-of-work (U.S. Army Corps of Engineers 1988) (Appendix A).

Maps and detailed drawings denoting the project locations were provided by the COE in the scope-of-work. Each survey area to be covered was clearly marked by yellow highlighting markers. The farm residences were located on the appropriate USGS topographic quadrangle and the highlighted drawings were utilized to define the extent of the survey at each location. The areal extent of the survey areas were determined from visual inspection of the drawings and by use of a Brunton compass and pacing.

Each defined area was then subjected to a pedestrian survey by a professional archaeologist. The largest transect interval was 15 m. Most areas were small enough that closer intervals of 10 m were routinely utilized. Specific attention was paid to all areas of disturbance and surface visibility, including road cuts, surface deflation zones, cattle trails, rodent mounds, gardens, and flower beds. Each survey area adjacent to the Souris River was inspected along the river cutbanks for detailed stratigraphy and the potential for eroding, buried cultural sites.

Exact survey procedures varied from location to location, given the varying impacts and size of the proposed project features. Specific references to each area inventoried is given in the following descriptive section.

Subsurface tests and probes were utilized at several of the locations. The shovel tests were excavated only in areas where permission from landowners could be obtained. Many areas were impossible to probe because permission to dig was denied by the landowner and the presence of growing gardens and grassed lawns. The maximum interval for shovel tests was 15 m. All fill was screened using quarter inch mesh hardware cloth. However, in most all cases, adequate surface visibility was present to allow for the identification of prehistoric sites.

At all survey areas possible, landowners were questioned about the presence of cultural materials and artifacts. The only landowners to acknowledge the presence of prehistoric artifacts in the area were Richard Johnson (ID 2600), Delores Stredwick (ID-810), and Vernus Teets (ID-960). With the exception of the Stredwicks, the landowners noted that artifacts were found in the general area, but not on the specific farmstead inventory.

7.0 PROJECT AREA DESCRIPTIONS AND RESULTS

A total of eleven survey areas were inspected for the 14 farmsteads and additional bank stabilization project. Each of the survey areas will be discussed and the results of the inventory presented below, by the COE identification numbers presented in an ascending numerical order.

ID-420

This feature involves the construction of a circular ring levee around the entire residence of the Darwin Moen farm and a small outlet channel west to the Wintering River. The survey area is located within the N1/2NE1/4NW1/4 of Section 4, T.154N., R.77W., McHenry County. The ring levee will cover a roughly square area 210 ft long by 40 ft wide. The outlet channel is 70 ft long by 20 ft wide and angles west from the northwest corner of the levee (Figure 7).

The limits of the survey area were precisely defined by a thin tree line or windbreak around the south and east sides of the house, a wooden rail fence on the north and the graveled drive on the west. The outlet ditch crosses fenced corrals and an existing levee on the east edge of the Wintering River.

This project area was considered to have very high site potential as it is located at the mouth of the Wintering River at its junction with the Souris River. The farm is found on a flat terrace east of the Wintering River and just south of the Souris River junction. Surface soils are a very black loam. Overall surface visibility of this project location was very good at 50 to 70% (Figure 8).

The entire area of the yard around the Moen house is grazed by cattle. The grass is short and very sparse. The treelines and fences are extensively exposed from milling of the cattle. Several flower beds are also present in yard and around the house. The area on the west between the house and the outbuildings has poor visibility due to the presence of intrusive gravel cover on the drive and area used for vehicle traffic. The corral area of the outlet ditch is open and visible from trampling of the cattle. The levee is grassed and the bank of the river is gentle and grassed with no cutbank exposures.

The survey resulted in the recordation of a single isolated artifact (Appendix B). The isolate consists of a reworked projectile point base and midsection of Knife River flint. The artifact is identified as a Besant type projectile point of the Late Middle Prehistoric period. No other associated artifacts were found, although the surface visibility was good.

The isolate is located within the NE1/4NE1/4NW1/4 of Section 4, T.154N., R.77W. The isolated find form is in Appendix B. It was found in the treeline north of the fenceline which defines the south edge of the survey area at a point 22 m due southeast from the southeast corner of the Moen house. The artifact is from the very south edge of the proposed construction area. A dirt trail south of the fence and treeline was also inspected but failed to show further evidence of cultural materials.

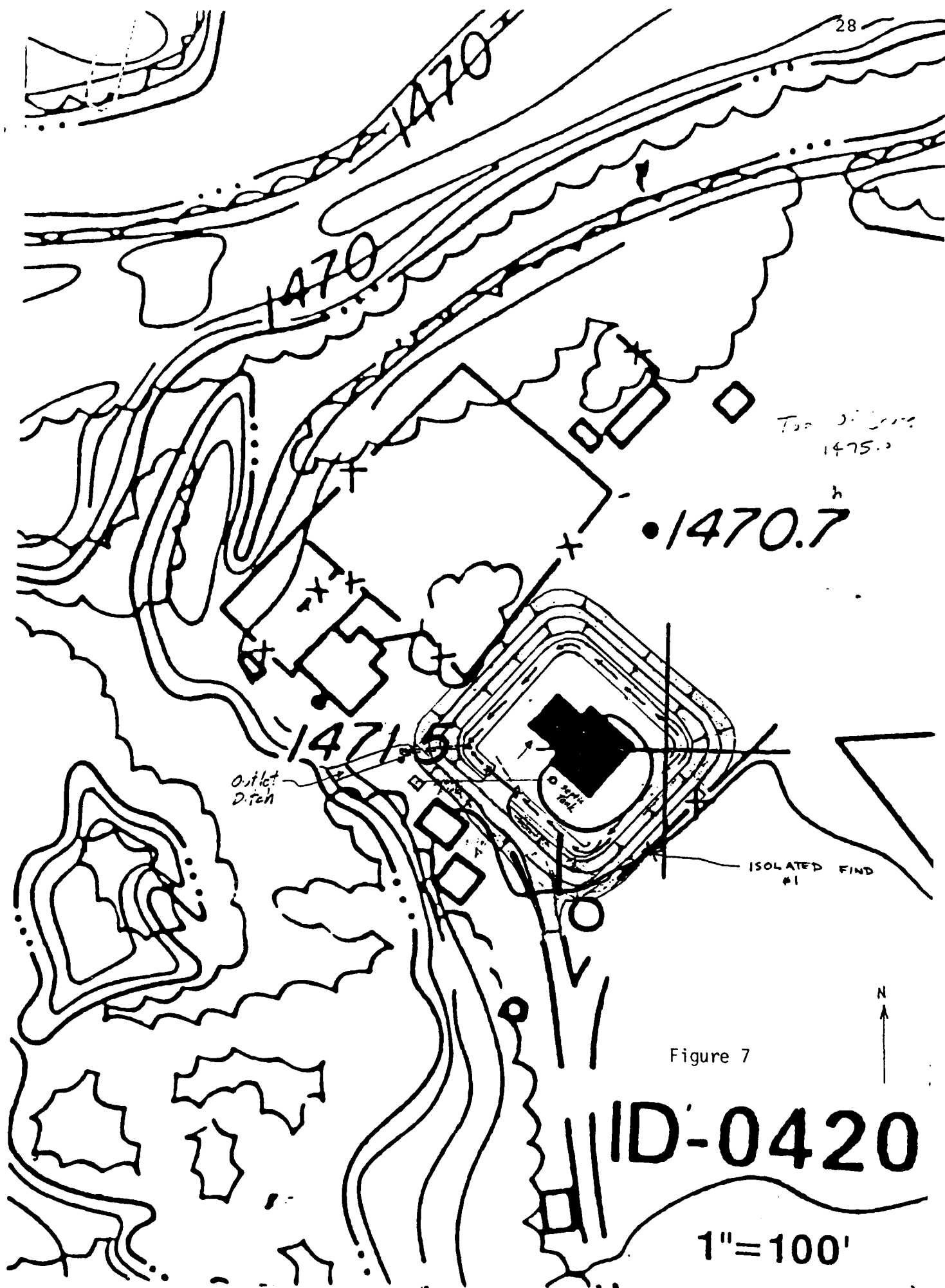


Figure 7

ID-0420

1"=100'

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Figure 8



ID-420, Northeast Along The South Levee Area.
Treeline Denotes Area Of The Isolated Find.



ID-420, Northeast Along Levee Area North Of Moen
House From The Gravelled Drive.

The isolated find is not a NRHP eligible resource. The survey area was adequate in surface visibility for the location of cultural materials. Since the area does not represent a significant cultural site or resource, no further work is recommended.

ID-769

This feature involves the construction of a half circle ring levee around the Ingvald Hanson residence of Sawyer. The levee will cover an area about 200 ft east-west around the house and will be about 100 ft wide. An area about 180 ft long along the Souris River bank will be stabilized and erosion protected as well. The survey area is located within the SE1/4SE1/4SW1/4 of Section 2, T.153N., R.81W., Ward County. The survey area is illustrated in Figure 9.

An existing levee runs along the south side of the residence and the new levee will expand and support this levee. The area surveyed was 125 ft from each side of the house south to the river. The Hanson farm is located on the north edge of the Souris River along the valley wall (Figure 10). The entire area north of the existing levee is fill. The farmstead has been cut into the wall of the river valley and flattened with fill to provide room for the residence. This area of extreme cut and fill has no archaeological potential.

The area south of the existing levee to the river is in native floodplain forest and consists of a narrow strip only 100 to 150 ft wide. The visibility in the forest area is minimal. The bank of the Souris along this area was checked. The banks are gentle and shallow. They are grassed with no surface or cutbank visibility. Archaeological potential along this low recent terrace of the Souris is low.

To verify this hypothesis, a series of three shovel probes were dug along the low terrace south of the Hanson farm at roughly 15 m intervals. The shovel tests produced no evidence of cultural materials or buried horizons. The probes exhibited 20 to 30 cm of dark brown clay loams over a sandy river alluvium. In addition, a plowed garden in a low area west of the house showed no cultural materials present.

The levee project at the Hanson farmstead has little potential to impact significant prehistoric cultural remains. No further work is recommended in this area.

ID-810

This project involves the construction of a levee to encircle the Stredwick residence in Sawyer. The project area was selected for inspection due to a report of "arrowheads in the garden" from a COE questionnaire (Figure 11). However, the project area

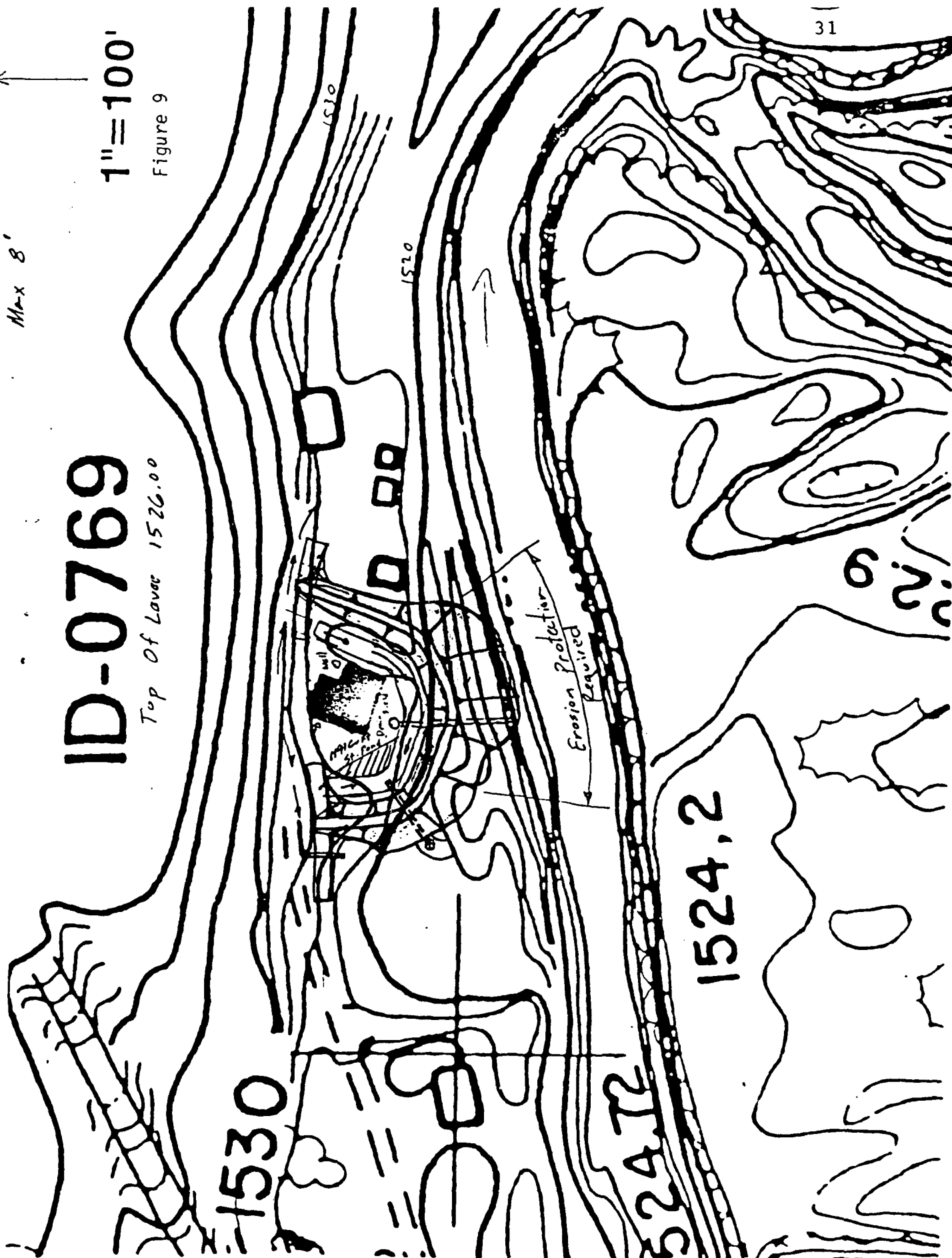
$$z \leftarrow$$

ID-0769

Top Of Layer 1526.00

$$1''=100'$$

Figure 9



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Figure 10



ID-769, West Along Existing Levee South Of
The Hanson Residence.



ID-769, Northwest Along The Lower Terrace And
Floodplain Forest Showing The Area Of The Shovel
Tests, Levee Construction, And Bank Stabilization.

2' New
Construction
1'3" Draw
1' CMP

Probable Existing
Pipe Culvert

Probable
Existing
Pipe
Culvert

Extend Pipe
As Required

24" CMP
Outlet Pipe

Relocate
Building

ID-0810

Top of Levee
1527.3

SITE WD#1

1"=100
Figure 11

15218

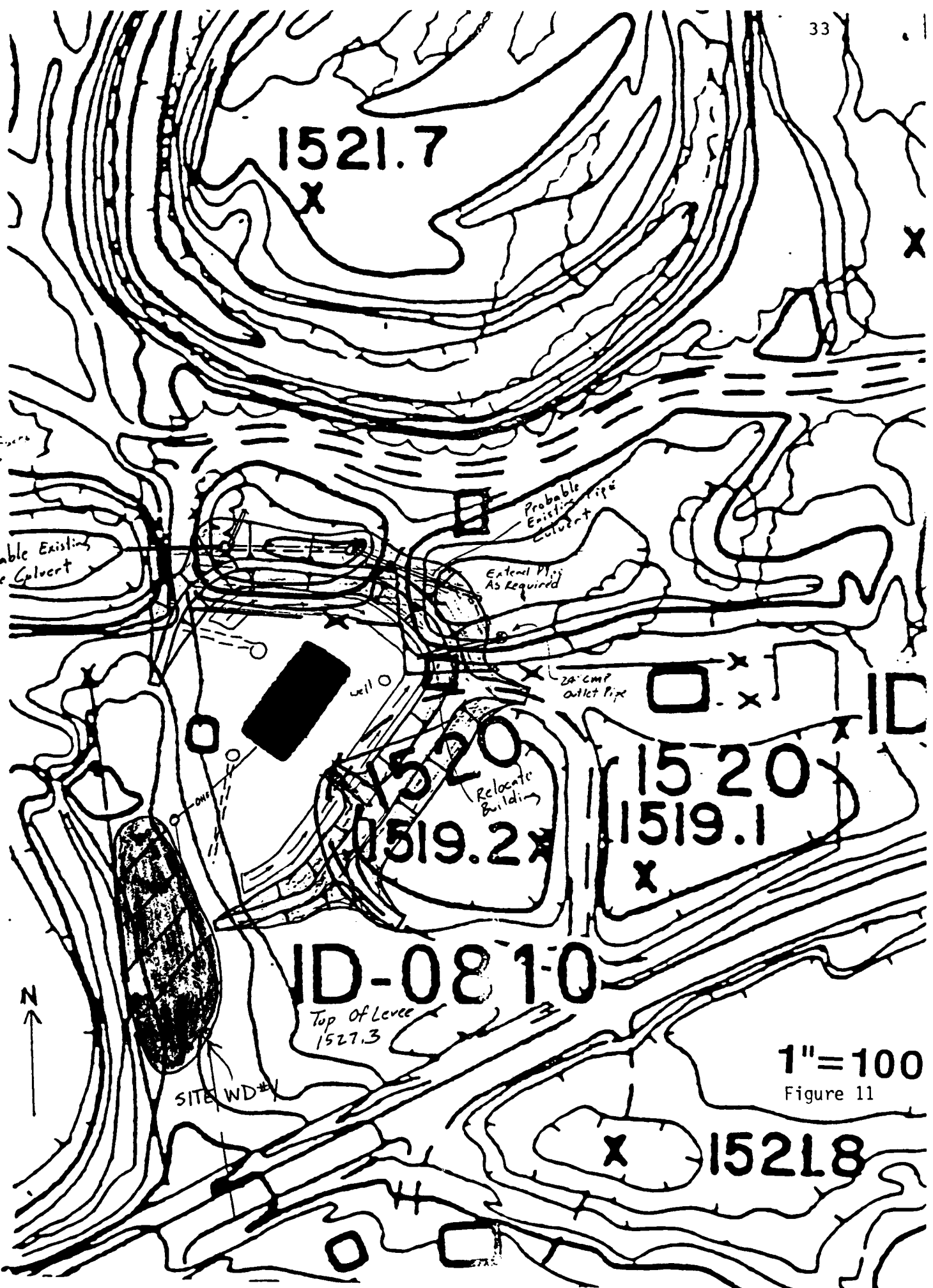
1521.7

1520

1519.2

1520

1519.1



selected, that is the garden area, is adjacent to the levee on the east side.

The presence of the site at the project area was confirmed through conversations with Delores Stredwick and from visual inspection of the reported site area. Mrs. Stredwick has a small collection from the site which includes a small side-notched arrow point of Knife River flint and a utilized flake, also of Knife River flint. The artifacts were collected from her garden, on the hill southwest of the house.

The site area was recorded as 32WD53. The site form is in Appendix B. The site is located within the NW1/4SE1/4NE1/4 of Section 10, T.153N., R.81W., Ward County. The site is located on a small rise of a linear north to south hill or terrace remnant which lies immediately above and west of an old meander channel of the Souris River. The crest of the hill has been cultivated as a garden by the Stredwicks in the past, but at the time of the survey it was grown over with weeds and not in use. Surface visibility was less than 10%.

The area was inspected using a series of close interval transects due to the poor visibility. An attempt was made to define the site limits, but this was hampered by poor visibility. The site extent is estimated from the surface visible artifacts and from talks with Mrs. Stredwick. The site appears to be confined to the immediate rise south of the higher hill crest on the very north end. The lower areas were inspected and failed to produce evidence of cultural materials. This includes a small garden area adjacent to the house just northeast of the site. The site is estimated to cover approximately 466 sq. m.

Artifacts observed include a total of seven items from the garden area. Two secondary, utilized flakes and five tertiary waste flakes were observed, all of Knife River flint. Given the poor visibility at the time of the survey, this suggests the site may actually be quite dense. The only diagnostic artifact is the small side-notched point in Mrs. Stredwick's possession. The artifact is characteristic of the Late Prehistoric period, but exact cultural identification is not possible from the point alone.

The site's relationship to the proposed project levee feature is shown in Figure 11. The site is apparently above and west of the proposed levee location. However, the site is defined on the basis of low surface visibility. The site is also very close to the area of construction, and if not in the actual impact area, it will possibly suffer from secondary impacts from construction activities. For this reason, it is recommended that the COE closely evaluate the potential impacts to the site area. At this time, it is recommended that Phase II testing be conducted at the site in order to more fully evaluate the size, depth and NRHP eligibility of the site. The testing is recommended prior to construction to more fully understand the nature of the site and

its relationship to the proposed construction of the levee feature at the Stredwick residence.

ID-960

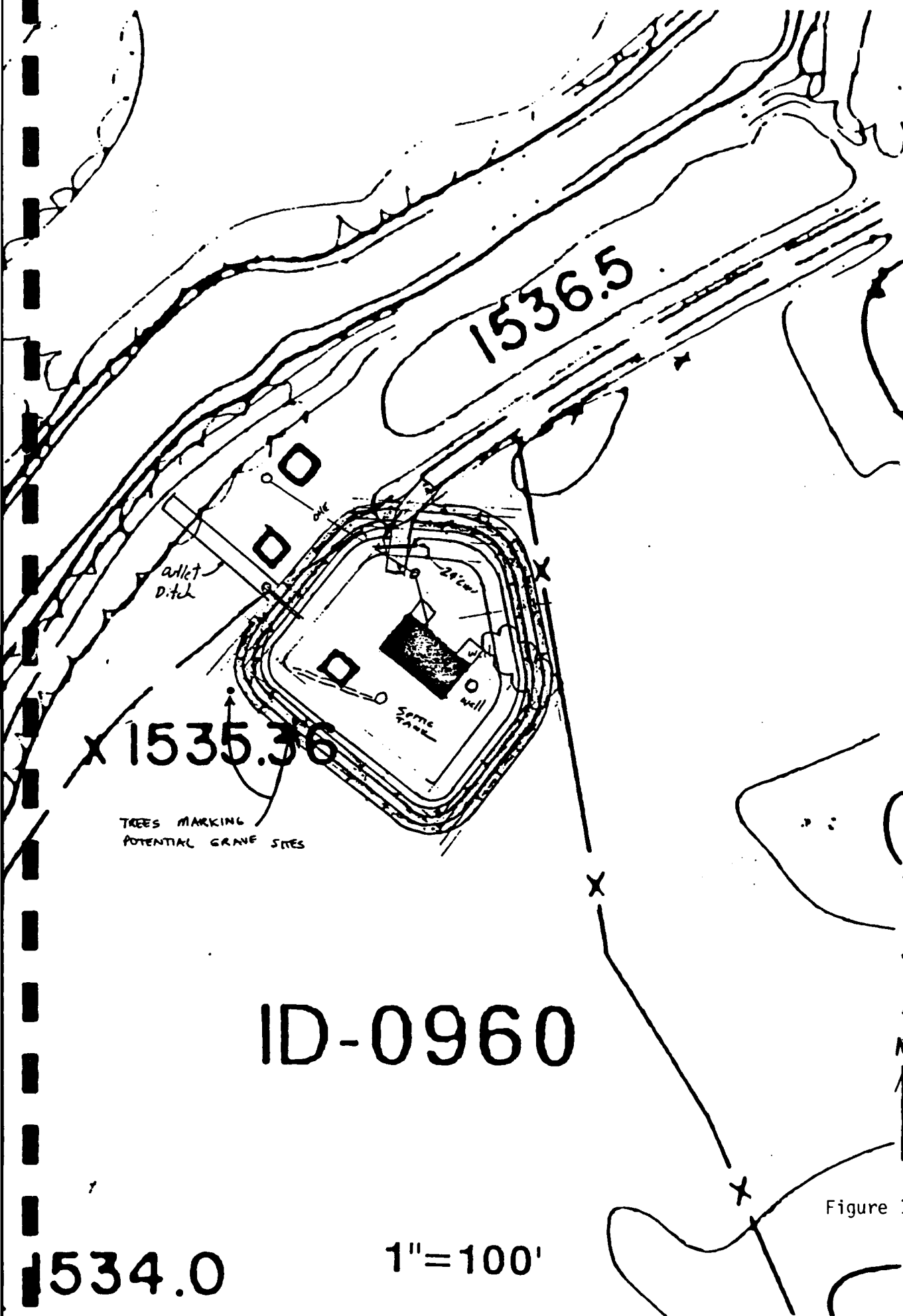
This feature involves the construction of a circular ring levee around the Vernus Teets residence and a small outlet channel northwest to the Souris River. The survey area is located within the SW1/4NW1/4SE1/4 of Section 19, T.154N., R.82W., Ward County. The ring levee will involve construction in an irregular pentagonal area approximately 240 ft by 240 ft with a width of about 40 ft. The outlet channel is about 110 ft long and 20 ft wide (Figure 12).

The survey limits were identified by pacing and use of features such as the west fenceline and drive. Across the west side of the house is an open lawn and garden area. An alfalfa field lies west of this. The south and east are marked by areas of pasture and lawn. To the north is a pasture and garden area by the river (Figure 13).

This location has much historic debris and features, especially north along the river and outlet channel route. The outlet channel will pass through or close to the old house foundation. A bulldozed trash pit is present with a vertical cut useful for stratigraphy. The river bank is grassed with no cutbanks visible. The profile cut produced no evidence of prehistoric materials, only historic artifacts. The garden area along the river was also inspected and failed to produce any cultural materials.

The landowner, Vernus Teets, was familiar with Indian relics from the area, but had never found any in the area of the farmstead itself. Apparently, some were located in the alfalfa field to the west. Teets also reported the presence of historic graves within the property and proposed levee right-of-way. The graves are from turn of the century, or early 1900s, and represent the interment of two small boys. He believes the graves are associated with a family of Stredwicks. The graves are unmarked, but were beneath a tree close to the old house to the south. Two trees are in the area, one located about 230° and 27 m from the northwest corner of the house and the other 255° and 38 m (Figure 12). The historic materials, foundation, and graves should be properly recorded by the historic/architectural survey of the project areas. The graves are located in the right-of-way, and should be evaluated prior to project impacts.

No prehistoric archaeological materials were found at this site. Surface visibility was adequate, given the cuts along the river, the two-track trails, and gardens. Overall, visibility was about 50%. No further work is recommended for the project in terms of prehistoric archaeology. The site should be evaluated and recorded by the historic survey, with a focus on the location of the graves.



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Figure 13



ID-960, Southwest Along Levee Area, Trees
Mark Potential Grave Sites.



ID-960, Cutbank Of Trash Pit Along The Outlet
Channel Right-Of-Way.

ID-1020

This project involves the construction of a levee on three sides of the main house dwelling as well as an outlet channel which is extending southwest from the levee. The resident's name is unknown. The survey area is found within the NE1/4NE1/4SE1/4 of Section 24, T.154N., R.82W., Ward County. The ring levee will cover an area about 400 ft long southwest of the house by 40 ft wide. A small storage pond in the southeast corner of the levee is slightly wider. The arms of the levee to the north are about 150 ft long by 20 ft wide. The outlet ditch is 300 ft long by about 30 ft wide (Figure 14).

The limits of the project were easily defined using the drive, fencelines and pacing. The house is built into the side slope of a low ridge or hill line. The ground slopes upward to the northeast. The levee will protect the low area of the house and yard to the southwest. The entire area of the proposed levee construction along the long axis southwest of the house is in an open, cultivated garden. The east side of the levee is in the garden and a field on the east (Figure 15). The surface visibility in this area is 90 to 100%. The only undisturbed area is found west of the drive along the arm of the levee. This area is in native grassland. Visibility is 20% with lots of glacial cobbles and stones. The outlet ditch crosses an alfalfa field with about 50 to 60% visibility due to poor cover.

The survey area had excellent surface visibility. No prehistoric cultural materials were observed. The area is located well away from the Souris River and the soils are shallow, with little potential for buried remains. No further work is recommended.

ID-1045

This feature involves a ring levee around the main residence of a small hobby farm. The survey area is located within the NE1/4NW1/4NE1/4 of Section 24, T.154N., R.82W., Ward County. The rectangular levee is about 300 ft by 190 ft and is 45 ft in width (Figure 16). The entire enclosed area was inventoried.

The project boundaries were easily identified from the existing roadways on the north and east and the fencelines on the west and south. The survey continued 50 ft past the wooden rail fences. The lawn areas had poor grass cover with 50% visibility. Areas of tree plantings and flower beds were present and also checked. The opposite sides of the fence are heavily grazed by cattle. Visibility is 70 to 80%. Also a disturbed area around the septic tank was inspected (Figures 15 and 18).

Surface visibility in the project survey area was good. No cultural materials relating to a prehistoric cultural occupation were recovered. No further work is recommended.

1D-1020

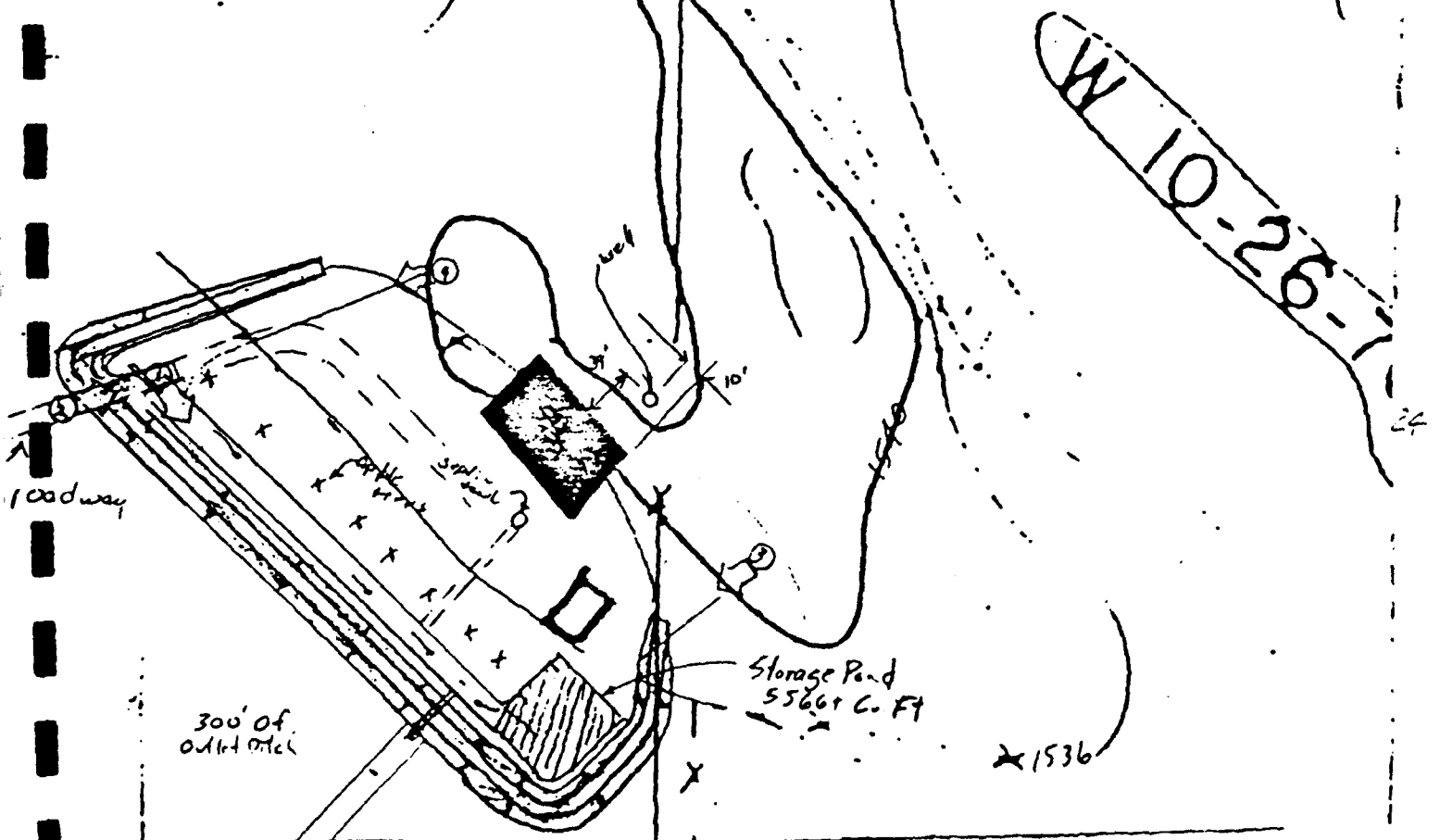


Figure 14

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Figure 15



ID-1020, Southeast Across Levee And
The Cultivated Area.



ID-1045, Northeast Overview Levee Area
And Residence Structure.

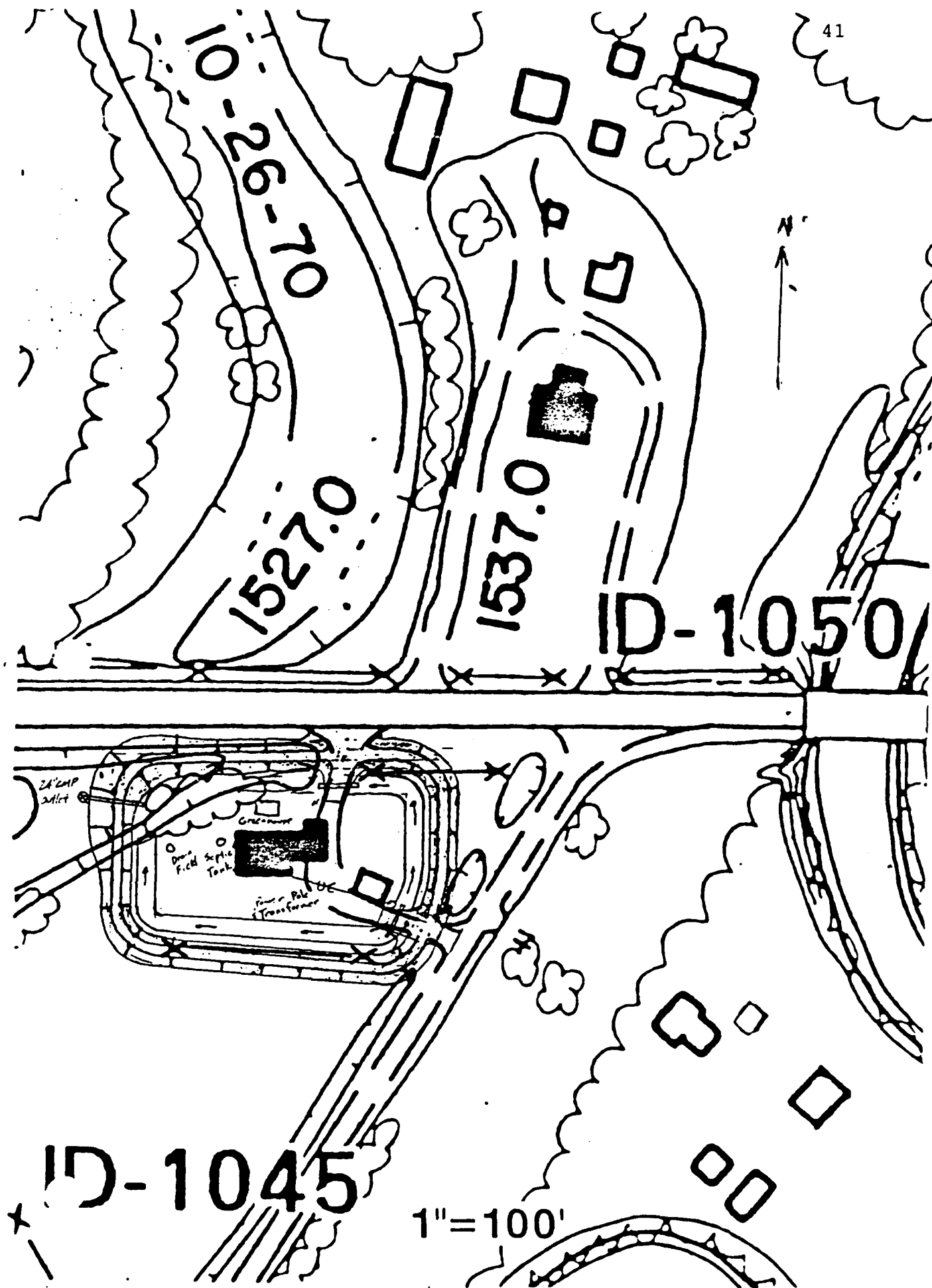


Figure 16

ID-1108

This feature involves the construction of a ring levee around the Everett Amundson residence. The survey area is located within the NW1/4NW1/4NE1/4 of Section 10, T.154N., R.82W., Ward County. The levee extends about 240 ft by 140 ft in a rectangular shape and is about 80 ft wide on the south and in the storage pond area (Figure 17). The entire rectangle area was inventoried.

This project is centered on the house on the east and west sides. An existing levee is present on the east side of the house and extends south across an old meander of the Souris River channel. The new levee will extend west from the existing levee across the backyard lawn along the bottom of the old river channel and back north to the house (Figure 18). Virtually the entire proposed project is within the banks of the old channel scar, with low site potential.

The area surveyed produced no cultural materials. No further work is recommended.

ID-1112, ID-1114, ID-1116

This feature involves the construction of a three-sided levee which will protect three residences. The survey area is located within the N1/2NE1/4NW1/4 of Section 10, T.154N., R.82W., Ward County. The north side of the levee is about 450 ft long by 30 ft wide. The east side is 380 ft long by 70 to 90 ft wide. The south side is 410 ft long by a maximum of 50 ft wide and includes a storage pond area (Figure 19).

The south side of the levee abuts against the existing railroad bed and track. The area is disturbed by the railroad construction and ditches. The pond area is in a low swale in the backyard of ID-1114. This area is grassed forest mowed into a lawn. The east side crosses the meander channel of the old Souris River and across a cleared floodplain forest to the railroad. The surface visibility is 50%. The north arm of the levee parallels the road and follows the ditch. The ditch exhibits a deep cutbank most of the way. No deep soils are present (Figure 20 and 21).

The landowner on the west side is Arthur Reinke. He has not seen any artifacts in the area. A single probe was dug in the forested area of the levee west of his home. No cultural materials were recovered and a profile similar to the ditch cut was revealed. The top 30 cm of the profile is a dark loam soil over a sandy alluvium.

No cultural materials were observed. Surface and subsurface examination indicate that no prehistoric sites are located in this project area. No further work is recommended.

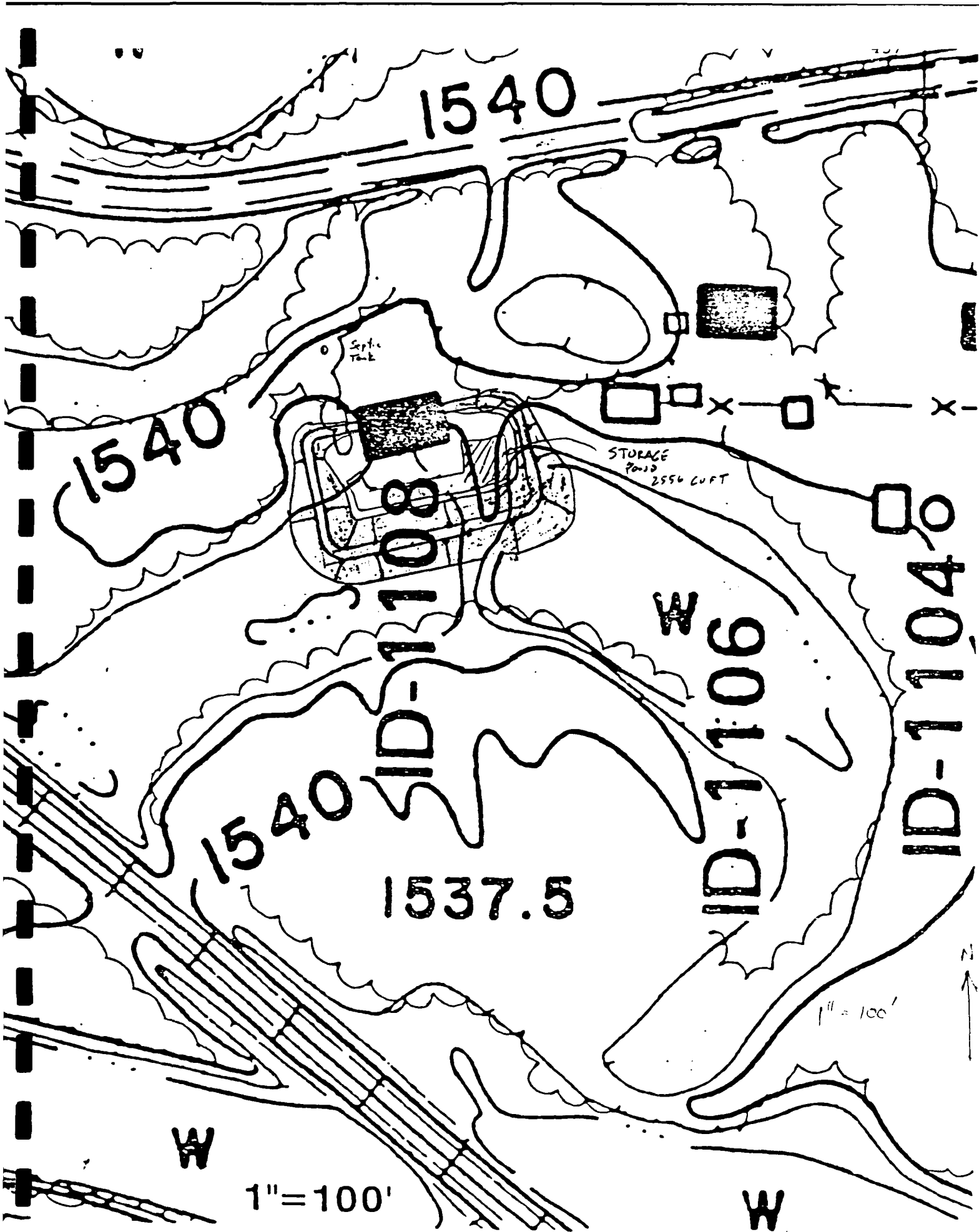


Figure 17

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Figure 18



ID-1045, East Along Levee Area South Of
The Residence.



ID-1108, East Across Levee Area And Meander
Toward The Existing Levee.

Raise Road Back To
Railroad
To El 1544

Top of Levee 1544

1" = 100'



W

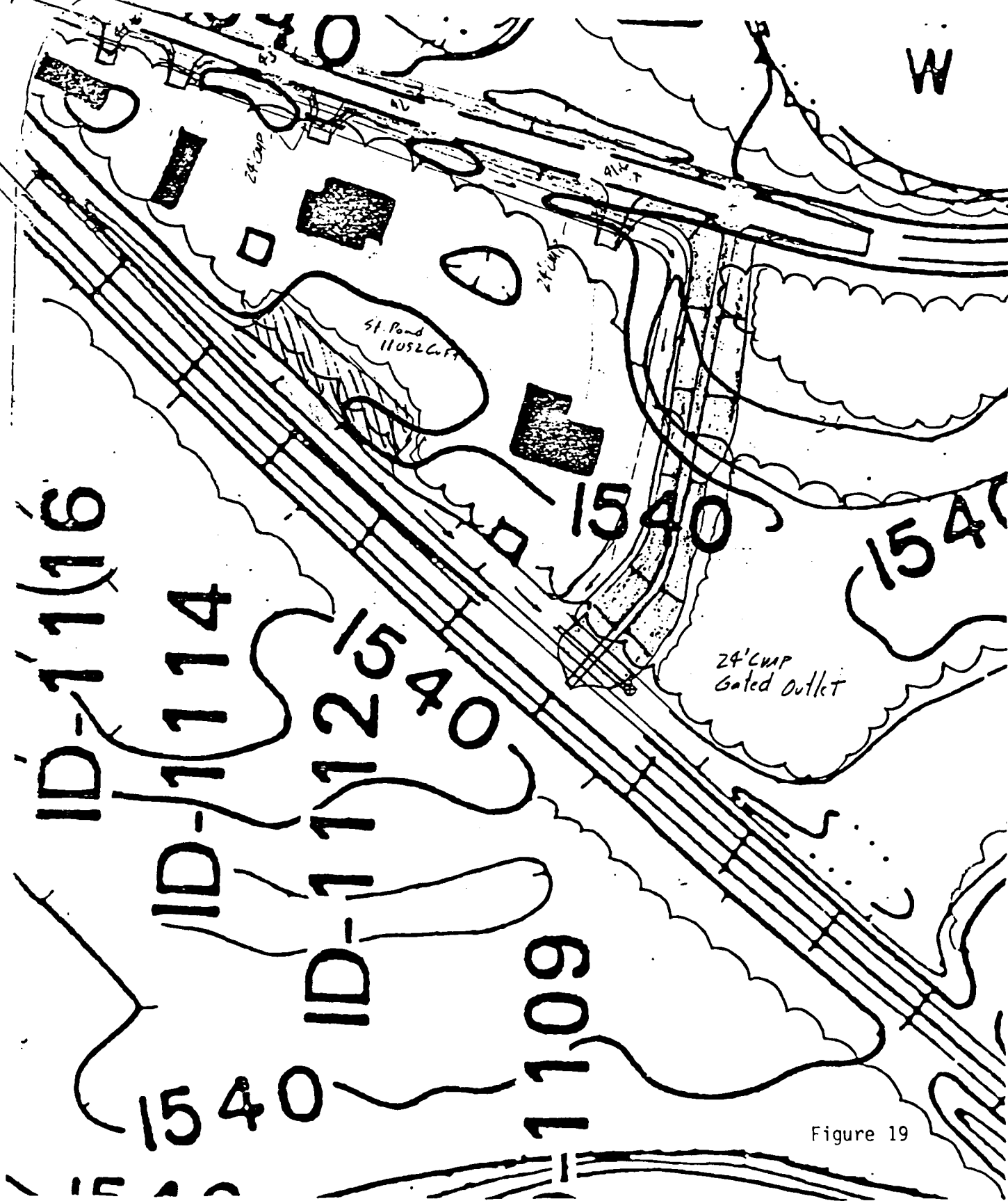


Figure 19

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Figure 20



ID-1112, ID-1114, ID-1116, Northwest Along
Levee Route By Railroad Tracks.

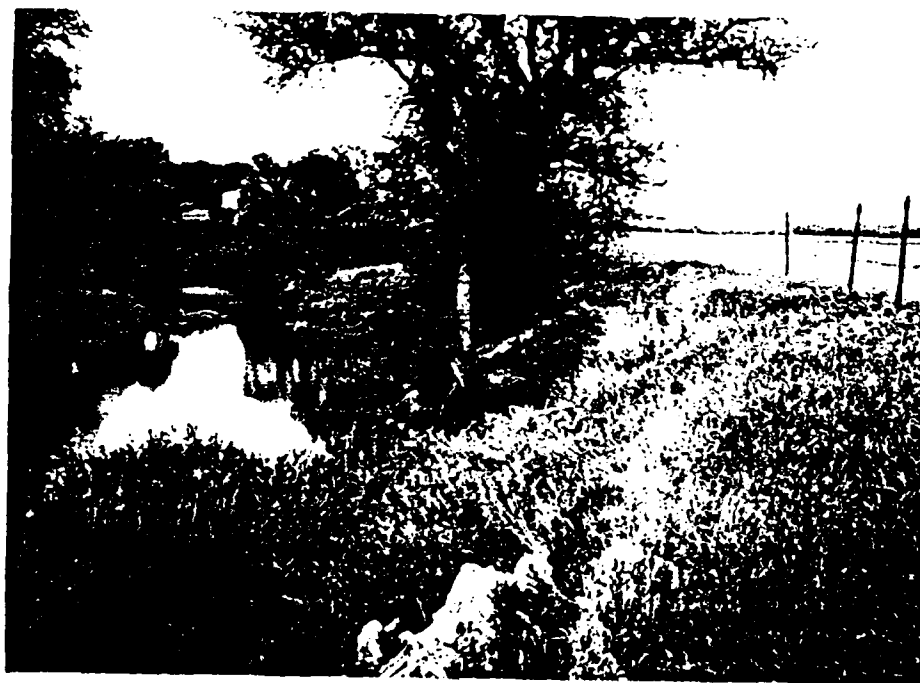


ID-1112, ID-1114, ID-1116, Levee Area South
Across Meander Channel West Of ID-1112.

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Figure 21



ID-1112, ID-1114, ID-1116, Northeast
Along Existing Roadway.



ID-1130, Bank Stabilization Area Toward
The Southeast Along The River Channel
And Road.

ID-1130

This feature is not on a farmstead and does not involve levee construction. Instead, it is a bank stabilization along a sharp meander of the Souris River. The project survey area is located within the center of the N1/2NW1/4 of Section 11, T.154N., R.82W., Ward County. The stabilization will cover a 500 ft length of the meander (Figure 22).

A county road runs along the terrace top south of the river valley above the meander. The survey is limited to the area of the steeply sloping cutbank north of the roadway (Figure 21). A single transect was inventoried along the south side of the road in an open fallow field.

The inspection of the vertical bank was difficult. The bank is slumping and eroding. Some areas are riprapped with cement fragments. The bank is in poor condition with limited visibility. All of the open cutbank exposures were examined for cultural materials or evidence of buried sites.

No cultural materials were revealed from the cutbank inspection or survey transect across the field. The potential for impact to significant cultural sites along this narrow bank is minimal. No further work is recommended.

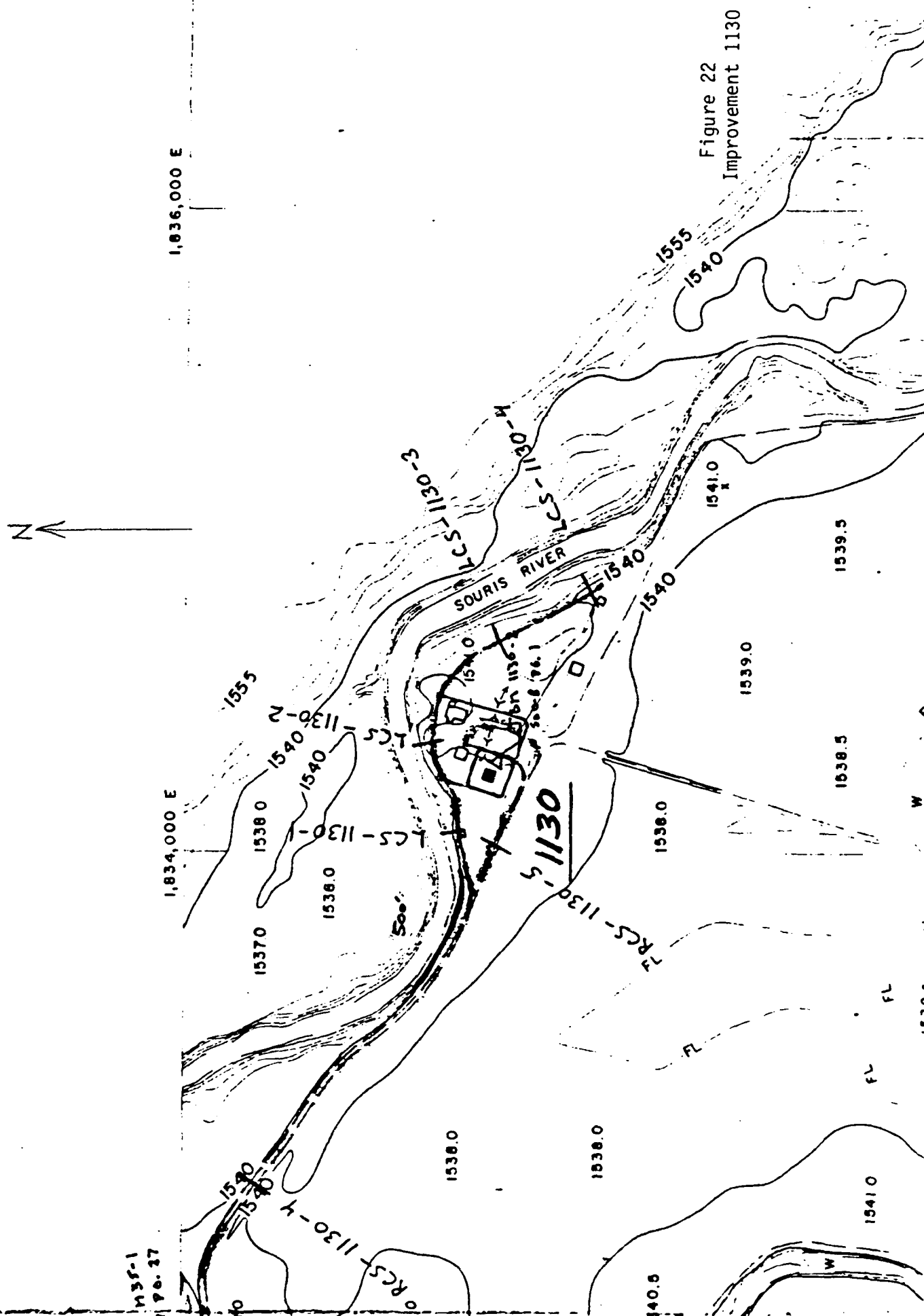
ID-1181, ID-1182, ID-1183

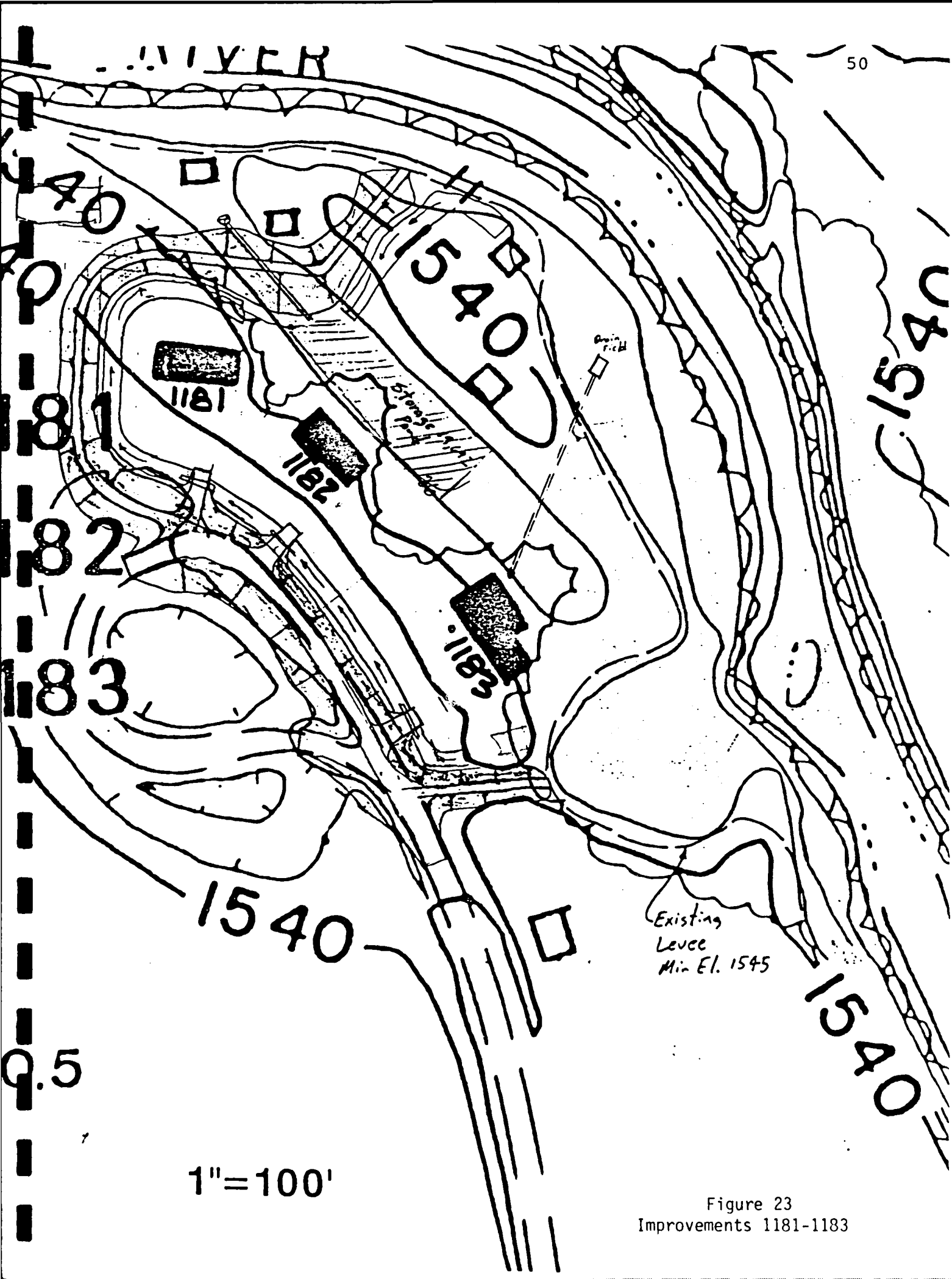
This feature involves the construction of a three sided levee and a small interior storage pond which will protect three residences from flooding. The survey area is located within the NW1/4SE1/4SE1/4 of Section 3, T.154N., R.82W., Ward County. The irregular shaped levee is approximately 1,000 ft long and 60 ft wide. The interior storage pond is about 200 ft by 50 ft in size (Figure 23).

The southern portion of the levee extends from an existing levee on the southeast end and parallels the existing road to the northwest. It then swings north to the west side of ID-1181, and northeasterly to the existing levee. The pond area covers a low swale in the fenced backyard of ID-1182.

The area is heavily disturbed by the modern residences and from landscaping activities. The south side is mostly sodded lawns, gardens and tree plantings. The west side is a grassy field and the northern portion is across floodplain forest and cleared backyards (Figure 24).

Two of the homeowners were present and consulted. Neither of them had any artifacts from the area or knew of any being found in the vicinity. No permission was granted for testing in the project areas. The areas inventoried have a low potential for prehistoric materials. The Powers inventory found no evidence of prehistoric occupation. No further work is recommended.





U.S. Department of the Army
St. Paul District, Corps of Engineers
Souris River Project Rural Improvements
Renville, Ward, McHenry Counties, North Dakota
Figure 24



ID-1181, ID-1182, ID-1183, Levee Area
Southeast Along The Existing Road.



ID-1181, ID-1182, ID-1183, North Along
The West End Of The Levee Area West Of
ID-1181.

ID-2600

This feature involves the construction of a circular ring levee around the Richard Johnson residence and a small outlet channel to the Souris River. The survey area is located within the SE1/4SE1/4NW1/4 of Section 36, T.163N., R.87W., Renville County. The levee is roughly rectangular but is irregular in shape. It extends some 180 ft by 150 ft with a maximum width of 40 ft. The outlet channel is on the northeast end and extends some 35 ft by 20 ft from the edge of the levee (Figure 25).

This entire area is heavily impacted by the farmstead. An existing levee is in place along the northern edge along the terrace of the Souris River. The eastern edge has a storage shed and a portion of the graveled drive. The south side has a series of graveled drives, fence, tree windbreaks and a cultivated area of tree plantings. To the west is a lawn, garden and windbreak. Overall visibility is good. Grassed areas are sparse with 30 to 70% visibility. The plowed areas and tree plantings are 90% visible.

The river cutbank on the north has poor exposures except for one area. The short section revealed no cultural materials. Deep soil zones were present with buried paleosols. None contained evidence of buried sites.

Most of the area inventoried contained historic artifacts relating only to the farm occupation. One area revealed a scatter of prehistoric lithic materials, along the graveled driveway northeast of the house. This area is littered with lithic artifacts extending some 26 m along the drive (Figure 26). No materials were visible in the adjacent grass and cleared areas next to the graveled drive. Visibility was good at 60 to 70%. The gravel on the drive is imported. The lithic materials were believed to be hauled into the farm along with the gravel from some other location.

In order to test this hypothesis, a series of eight shovel probes were excavated in areas adjacent to the driveway. The probes were placed in five meter intervals (Figure 27). No cultural materials were recovered from the probes.

As a result of the tests, it was concluded the lithic materials are imported, are not in their proper context and have no integrity. The area was therefore not recorded as a site.

The surface survey and shovel probes prove that no in-situ prehistoric remains exist at this location. Richard Johnson has a large collection of artifacts. These are primarily from sites 32RV411 and 32RV412 in the surrounding fields. In talks with the Johnsons, none of the artifacts were from the immediate yard area. It appears that this project will not impact any significant prehistoric resources. No further work is recommended.

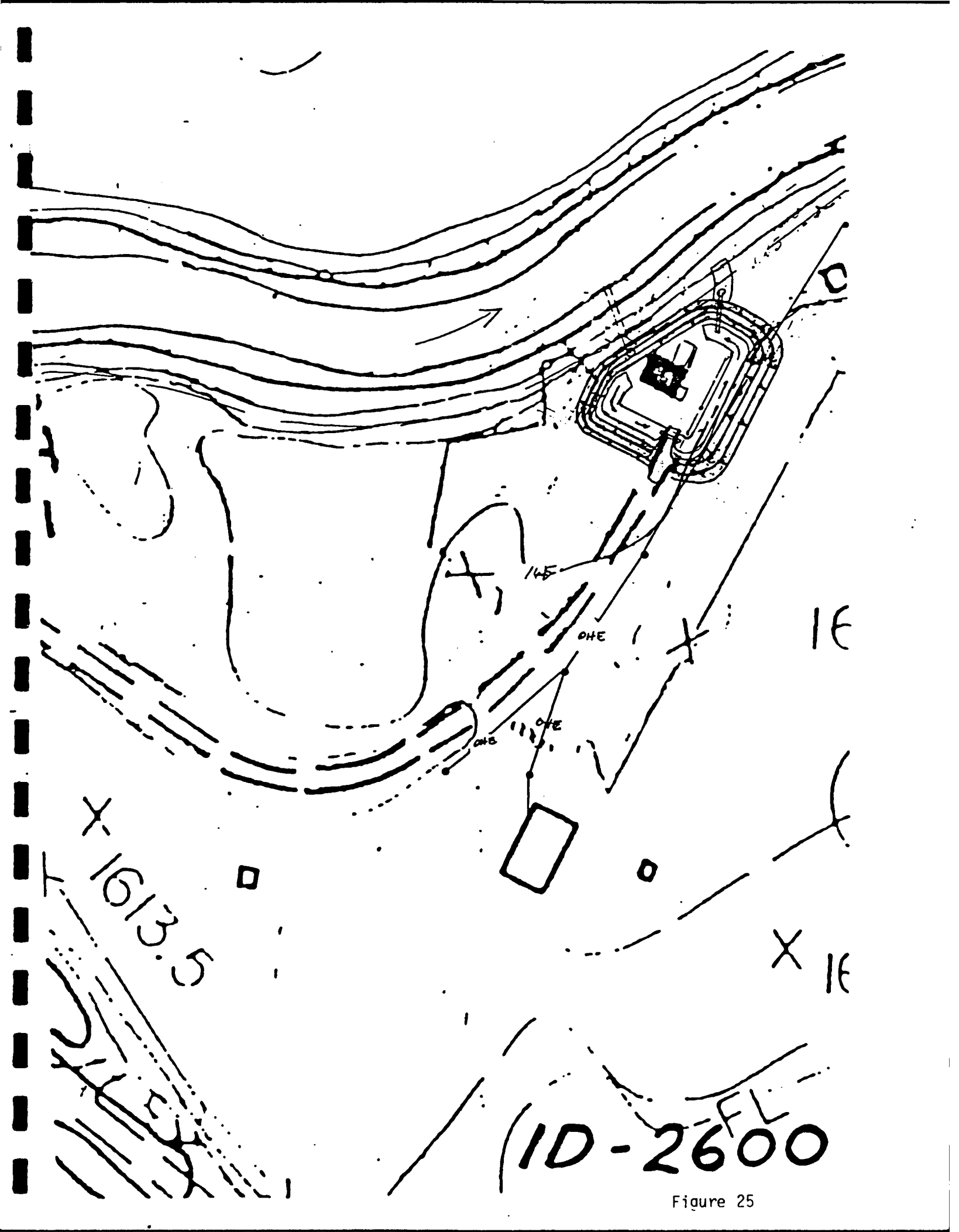


Figure 25

U.S. Department of the Army
St. Paul District, Corps of Engineers
Souris River Project Rural Improvements
Renville, Ward, McHenry Counties, North Dakota
Figure 26



ID-2600, Overview Toward The East
Northeast House, Garden Levee Area.



ID-2600, Area Of Artifact Scatter On
Drive Toward The Southwest.

SKETCH OF SHOVEL PROBES AND AREA OF LITHIC
SCATTER ALONG DRIVE AT RICHARD JOHNSON'S
ID-2600

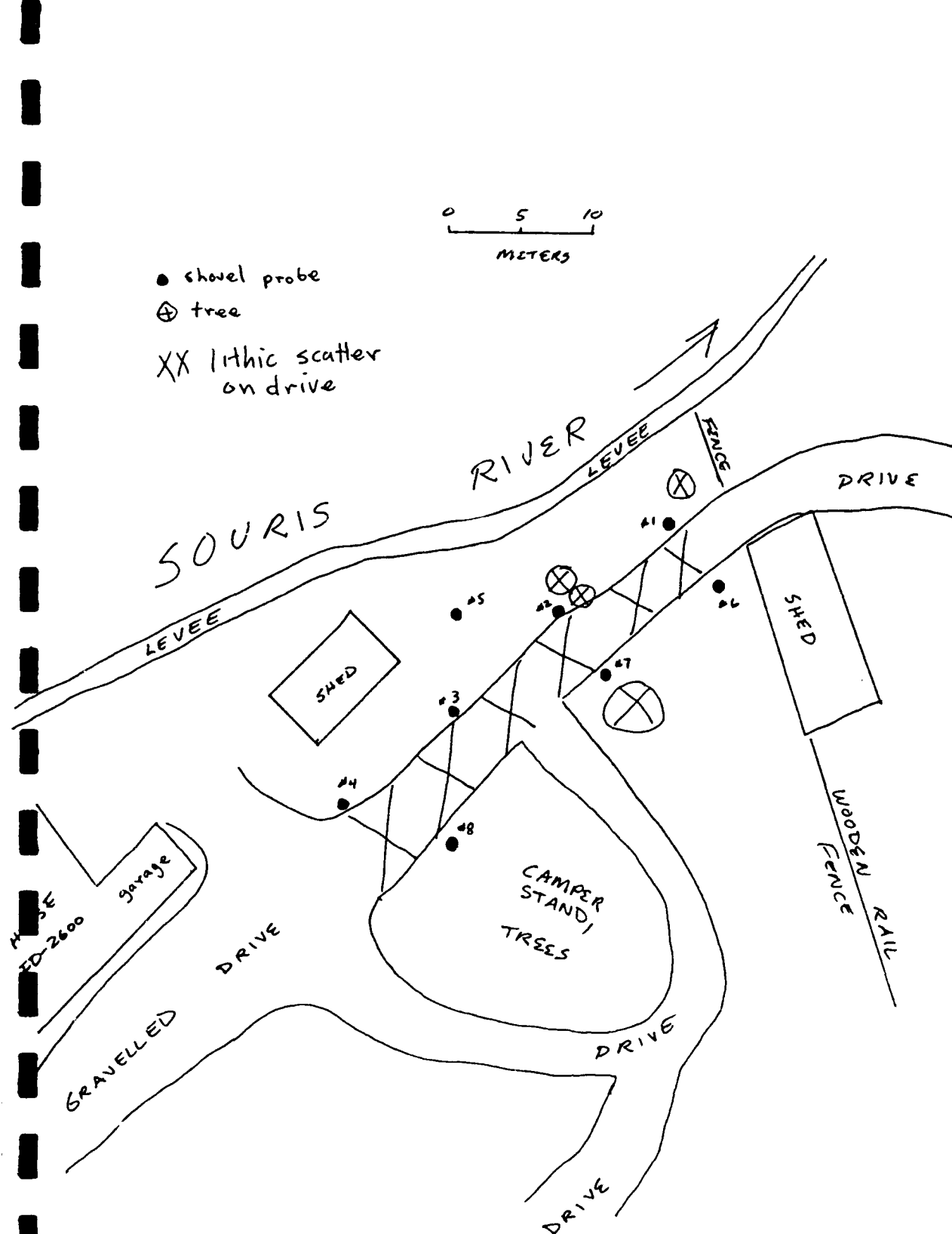


Figure 27

8.0 EVALUATION AND CONCLUSIONS

In July of 1988, Powers conducted a Phase I archaeological survey of the proposed Souris River Basin Project Rural Improvements in North Dakota for the COE. A total of 11 survey areas of small size were inventoried. The proposed project feature included ring levee construction, outlet channel construction, and interior storage ponding areas to protect a total of 14 rural residences from floods. A bank stabilization area was also inventoried; and one farm residence was examined because a report of arrowheads in the garden from a COE questionnaire. Field procedures included the use of surface pedestrian survey, cutbank inspection, limited subsurface testing and interviews with homeowners.

As a result of the study, one prehistoric cultural site and one prehistoric isolated find were recorded. The prehistoric site consists of an unspecified Late Prehistoric cultural material scatter located on a rise above a meander of an old channel of the Souris River within the town of Sawyer. The site consists of a lithic scatter of Knife River flint artifacts within a former garden area. The landowner, Delores Stredwick, has a small collection from the site which includes a small, side-notched arrow point of Knife River flint. The point is typical of the small arrow points of the Late Prehistoric period, but not diagnostic enough to relate it to a specific cultural group. The site is of undetermined eligibility for the NRHP. The site is located at COE designation ID-810.

The isolated find was recorded at COE designation ID-420. It consists of a Besant type projectile point of the Late Archaic or Middle Prehistoric period. The isolate is manufactured of Knife River flint and is broken through the midsection. It has been retouched and modified through steep retouch of the fracture to form a scraping tool. As an isolated artifact, this find is not significant and not eligible to the NRHP.

No buried prehistoric cultural materials were found along the river cutbanks or in the shovel tests conducted. Few of the previous sites in the Souris River Basin area have been found through inspection of cutbanks. However, as a result of the cutbank and cut inspections, as well as shovel test results, it is believed most of the areas surveyed by Powers have a low potential to contain significant buried sites.

The recorded site on the valley floor of the Souris River was a cultural material scatter, as was predicted by review of past surveys and the type of sites recorded. The site was also a Late Prehistoric manifestation, which is not unexpected, given the past survey results. The majority of the Souris River sites are Late Prehistoric in age with the greatest density recorded from approximately A.D. 1100 onward. The site was not related to any specific cultural group, but further testing of the site could

add knowledge about the cultural identity of its occupants and the exact period of its occupation.

All of the materials at the site were Knife River flint. Earlier testing along the Upper Souris River noted that most of the Late Prehistoric sites were dominated by Swan River chert while earlier Middle Prehistoric occupations seemed to be more Knife River flint oriented (Floodman and Friedman 1986). However, Knife River flint was usually associated at the Late Prehistoric sites in some numbers. The apparent discrepancy could be an isolated example, or other materials may dominate the site given the low surface visibility. The Knife River flint predominance at this site may indicate a Middle Missouri cultural occupation, or the materials could be the result of trade. Further work at the site is necessary to analyze the site and its cultural meaning for the Upper Souris River valley. The Middle Prehistoric preference for Knife River flint is supported by the isolated Besant projectile.

In all, the survey areas investigated by the current project proved to be heavily disturbed by the presence of the historic residences. While in some instances, the historic site disturbances may have destroyed some site evidences, at most areas the disturbances aided in surface visibility. It is believed the Powers inventory was of sufficient scope and intensity to locate any prehistoric site within the proposed project boundaries.

9.0 RECOMMENDATIONS

The current project has inventoried a total of 11 survey areas to be impacted by the Souris River Basin Project Rural Improvements. The survey has resulted in the recordation of one isolated find which is ineligible to the NRHP and one prehistoric cultural site of undetermined eligibility to the NRHP.

As a result of the survey, further archaeological work is recommended for only one rural improvement. This is COE designation ID-810, the Stredwick Residence at Sawyer. The site lies outside of the primary impact of the proposed levee construction on the hill southwest of the house. The site lies very close to the proposed levee construction and may suffer from secondary impacts of construction.

Further site evaluation to determine the extent, depth, and NRHP eligibility of the site is recommended if the site will be impacted. A Phase II testing program at the site area prior to construction is suggested. The testing goals could include the recovery of more diagnostic artifacts, datable materials, and other data relevant to place the site within its proper place in the prehistory of the Souris River Valley.

No further archaeological work is recommended at the other 10 project locations surveyed. This recommendation is based upon the lack of significant cultural materials within the project limits.

However, additional historical investigations are recommended at ID-960, the Teets residence. The landowner claims that there are two child burials dating to the early 1900s in the impact area. It is recommended that the historical consultant for this project examine this site to evaluate its historic remains, and try to locate the graves.

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SCOPE OF WORK
PHASE I ARCHAEOLOGICAL SURVEY
OF THE SOURIS RIVER BASIN PROJECT
RURAL IMPROVEMENTS

1.00 INTRODUCTION

1.01 The Contractor will undertake a Phase I archaeological survey of the proposed Souris River Basin Project rural improvements.

1.02 This survey partially fulfills the obligations of the Corps of Engineers (Corps) regarding cultural resources, as set forth in the National Historic Preservation Act of 1966 (Public Law [PL] 89-665), as amended; the National Environmental Policy Act of 1969 (PL 91-190); Executive Order (EO) 11593 for the "Protection and Enhancement of the Cultural Environment" (Federal Register, May 13, 1971); the Archaeological and Historical Preservation Act of 1974 (PL 93-291); the Advisory Council on Historic Preservation "Regulations for the Protection of Historic and Cultural Properties" (36 CFR, Part 800); and the applicable Corps regulations (ER 1105-2-50).

1.03 The laws listed above establish the importance of Federal leadership, through the various responsible agencies, in locating and preserving cultural resources within project areas. Specific steps to comply with these laws, particularly as directed in PL 93-291 and EO 11593, are being taken by the Corps "... to assure that Federal plans and programs contribute to the preservation and enhancement of non-federally owned sites, structures, and objects of historical, architectural, or archaeological significance." A part of that responsibility is to locate, inventory, and nominate to the Secretary of the Interior all such sites in the project area that appear to qualify for listing on the National Register of Historic Places.

1.04 EO 11593 and the 1980 amendments to the National Historic Preservation Act further direct Federal agencies "... to assure that any federally owned property that might qualify for nomination is not inadvertently transferred, sold, demolished or substantially altered." In addition, the Corps is directed to administer its policies, plans, and programs so that federally and non-federally owned sites, structures, and objects of historical, architectural, or archaeological significance are preserved and maintained for the inspiration and benefit of the people.

1.05 This cultural resources survey will serve several functions. The report will be a planning tool to aid the Corps in meeting its obligations to preserve and protect our cultural heritage. It will be a comprehensive, scholarly document that not only fulfills federally mandated legal requirements but also serves as a scientific reference for future professional studies. It will identify resources that may require additional investigations. Thus, the report must be analytical, not just descriptive.

2.00 PROJECT DESCRIPTION

2.01 The authorized Souris River Basin project is a flood control project for urban and rural reaches of the Souris River in North Dakota. The project involves flood control features in both the United States and Saskatchewan, Canada.

2.02 Features in Canada include the construction of two reservoirs for flood storage, the Alameda and Rafferty reservoirs, and the operation of a diversion between the Rafferty reservoir and the United States/Canadian border.

2.03 Features in the United States include modification of the gated outlet structure at the existing Lake Darling Dam; mitigation of project-related impacts to U.S. Fish & Wildlife Service lands; mitigation of project-related impacts to farmsteads upstream and downstream of Lake Darling; and a water control plan for the safe release of water downstream. The overall project also includes flood control levees at Velva, North Dakota, and the channel modification at Minot. Construction of these last two project features has already been completed.

2.04 Cultural resources surveys have been conducted for the majority of the project features discussed above. In addition, Saskatchewan has conducted cultural resources investigations of the proposed Alameda and Rafferty reservoirs in Canada.

2.05 The portion of the overall project included in this survey contract is that part related to the mitigation of project-related impacts to farmsteads upstream and downstream of Lake Darling. Proposed measures to mitigate damages to farmsteads includes raising access roads, constructing ring levees around primary farm residences, raising primary farm residences, and the acquisition of primary farm residences. Farm outbuildings will not be protected under the project. The purpose of the mitigation is to alleviate damages associated with increased discharges from the Canadian Dams. It will not protect the farmsteads from existing flood events.

2.06 The farmsteads to be included under this contract are shown on the attached maps. Fourteen farmsteads are currently slated for ring levee construction. Of these 14, one (farmstead number 769) will also require bank protection along the river where there is limited space available for construction of the levee. One additional farmstead (number 1130) that will undergo structural modifications will also need to be surveyed where bank protection is proposed to protect against future erosion. Finally, there is one structure that is to be modified (number 810) that should be surveyed because there are reports of "arrowheads in garden" (from farmstead owner questionnaire).

2.07 Please note that this survey contract deals only with archaeological survey. Historic standing structure surveys of the farmstead buildings themselves will be undertaken by a qualified historian.

3.00 DEFINITIONS

3.01 Cultural Resources include any building, site, district, structure, object, data, or other material relating to the history, architecture, archaeology, or culture of an area.

3.02 A Phase I Archaeological Survey is an intensive, on-the-ground investigation of an area sufficient to determine the number and extent of the resources present and their relationships to project features. It will provide (1) data adequate to assess the general nature of the sites present; (2) recommendations for additional testing of those resources that may provide important cultural and scientific information; and (3) detailed time and cost estimates for Phase II testing.

3.03 Phase II Testing is the intensive testing of a resource that may provide important cultural or scientific information. This testing will result in (1) information adequate to determine whether the resource is eligible for inclusion on the National Register of Historic Places; (2) a Phase III mitigation plan for any eligible resources that will undergo a direct or indirect impact; and (3) detailed time and cost estimates for the mitigation.

3.04 Phase III Mitigation is the mitigation of the direct or indirect impacts of construction upon eligible sites through the systematic removal of data. It typically includes the excavation of either complete cultural deposits or a systematic sample of them and the thorough analysis and interpretation of the data recovered. The excavation, analysis, and interpretation methods must be adequate to address the important research questions upon which the resource was determined eligible. In addition, because the mitigation process destroys the resource, data should be collected to address future research questions.

4.00 SURVEY SPECIFICATIONS

4.01 The Contractor will undertake a Phase I archeological survey of 15 farmsteads and 1 proposed riprap area as described in paragraphs 2.06 and 3.02 above.

5.00 PERFORMANCE SPECIFICATIONS

5.01 The Contractor's work will be subject to the supervision, review, and approval of the Contracting Officer's representative.

5.02 The Contractor will employ a systematic, interdisciplinary approach in conducting the study, using techniques and methods that represent the current state of knowledge for the appropriate disciplines. The Contractor will provide specialized knowledge and skills as needed, including expertise in archaeology and other social and natural sciences.

5.03 The Contractor will provide all materials and equipment necessary to perform the required services expeditiously.

5.04 The Contractor's survey will be an on-the-ground examination sufficient to determine the number and extent of any prehistoric and historic archaeological sites that may be present.

5.05 Field methodologies and techniques will be coordinated with the Contracting Officer's representative prior to the commencement of field work. The requirements listed in this scope of work are to be considered the minimal professional standards acceptance to the Government in the conduct of field survey. Any deviation from these standards must be adequately justified and described in the Contractor's report. Inadequate justification may require you to return to the field to meet minimal standards.

5.06 The Contractor's survey will include surface inspection in areas where surface visibility is adequate to reveal any cultural materials that are present and subsurface testing in all areas where surface visibility is inadequate. Subsurface investigation will include shovel testing, coring, soil borings, cut bank profiling, or other appropriate methods.

5.07 The survey interval required for pedestrian survey and subsurface testing is 15 meters (50 feet). However, this interval may vary depending upon field conditions, site density, or size. If a larger interval is used, this decision must be justified in the Contractor's report.

5.08 The Contractor will screen all subsurface tests through 1/4-inch mesh hardware cloth.

5.09 The Contractor will recommend any Phase II testing measures that are warranted, including time and cost estimates.

5.10 The Contractor will return all subsurface test areas as closely as practical to pre-test conditions.

5.11 If it becomes necessary in the performance of the work and services, the Contractor will, at no cost to the Government, secure the rights of ingress and egress on properties not owned or controlled by the Government. The Contractor will secure the consent of the owner, or the owner's representative or agent, in writing prior to effecting entry on such property. If requested, a letter of introduction signed by the District Engineer can be provided to explain the project purposes and request the cooperation of landowners. Where a landowner denies permission for survey, the Contractor must immediately notify the Contracting Officer's representative and must describe the extent of the property to be excluded from the survey.

5.12 State site forms will be prepared for all sites discovered during the survey, and records on previously reported sites will be updated. Data should be included on the present condition of each site and on the contents and locations of any collections from it. The Contractor will also submit all site forms and updates to the appropriate State agency.

5.13 The Contractor must keep standard records that include field notes and maps, site survey forms, subsurface testing forms, and photographs.

5.14 Cultural materials and associated records from the study should be curated at an institution that can ensure their preservation and make them available for research and public view. Curation should be within the State and as close as possible to the project area. The Contractor will be responsible for making curatorial arrangements, coordinating them with the appropriate officials of North Dakota, and obtaining approval from the Contracting Officer's representative.

5.15 When sites are not wholly contained within the survey area of this contract, the Contractor will include an area outside the survey area large enough to include the entire site. This shall be done to delineate the site boundaries and to adequately access the degree to which the site may be impacted.

6.00 GENERAL REPORT REQUIREMENTS

6.01 The Contractor will submit the following documents, described in this section and Section 7.00: a field report, field notes, a draft contract report, and a final contract report.

6.02 The Contractor's field report will be a brief summary of the nature, extent, and results of the field work conducted. It may be in the form of a letter to the Contracting Officer's representative.

6.03 The Contractor's field notes will include legible copies of important notes and records kept during the investigation. Especially important are the daily field journal of the Principal Investigator or field director, field site survey forms, and subsurface testing forms. One copy of these notes should be submitted to the Contracting Officer's representative with the draft contract report but should not be bound into the report.

6.04 The draft contract report will detail the approach, methods, and results of the investigation, and make recommendations for further work. It will be submitted to the Contracting Officer's representative, who will review it and forward it to other appropriate agencies and individuals for review. Comments will be returned to the Contractor, who will make the required revisions and submit the final contract report.

6.05 The Contractor's draft and final reports will include the following sections as appropriate to the study. The length of each section depends on the level of detail required of the study and the amount of information available. The reports should be as concise as possible, yet provide all the information needed for evaluating and managing the project and for future reference.

a. **Title page:** The title page will provide the following information: the type of study; the types of cultural resources assessed (archaeological, historical, and architectural); the project name and location (county and State); the date of the report; the Contractor's name; the contract number; the name of the author(s) and/or Principal Investigator; the signature of the Principal Investigator; and the agency for which the report is being prepared.

b. **Management summary:** This section will provide a concise summary of the study, containing all the information needed for management of the project. This information will include the reason the work was undertaken, who the sponsor was, a brief summary of the scope of work and budget, a summary of the field work and lab analysis, the limitations of the study, the results, the significance of the results, recommendations for further work, and the repository for records and artifacts.

c. **Table of contents**

d. **List of figures**

e. **List of plates**

f. **Introduction:** This section will identify the sponsors (Corps of Engineers) and their reason for the study and present an overview of the study with each site located on USGS quad maps. It will also define the location and boundaries of the study area (using regional and area-specific maps); define the study area within its regional cultural and environmental context; reference the scope of work; identify the institution that did the work and the number of people and person-days/hours involved; give the dates when the various phases of the work were completed; identify the repository of records and artifacts; and provide a brief outline of the report and an overview of its major goals.

g. **Previous archaeological and historical studies:** This section will concisely summarize and evaluate previous archaeological and historical research in the study area including the researchers, dates, extent, adequacy, and results of past work and any cultural/behavioral inferences derived from it.

h. **Environmental background:** This section will concisely describe the current and prehistoric environment of the study area, including its geology, vegetation, fauna, climate, topography, physiography, and soils. The relationship of the environmental setting to the area's prehistory and history should be stressed. The level of detail in this section will be commensurate with that of the other report sections.

i. **Theoretical and methodological overview:** This section will state the goals of the sponsor and the researcher, the theoretical and methodological orientation of the study, and the research strategies that were applied to achieve the goals.

j. **Field methods:** This section will describe all field methods, techniques, and strategies and the reasons for using them. It will also describe field conditions, relevant topographic/physiographic features, vegetation conditions, soil types, stratigraphy, general survey results, and the reasons for eliminating any uninvestigated areas.

k. **Laboratory and analysis methods:** This section will explain the laboratory methods employed and the reasons for selecting them. It will reference accession or catalog numbers of any collections, photographs, or field notes obtained during the study and state where these materials are permanently housed. It will also describe and justify the specific analytical methods used, including any quantitative analysis of the data, and discuss limitations or problems with the analysis.

l. **Results:** This section will describe the cultural resources found during the study. It will minimally include each site's description (including size, depth, and artifact density); its location (USGS quad, legal description, elevation, and address if appropriate); the amounts and types of remains recovered; its environmental setting; its current condition; the direct and indirect impacts of the project upon it; and any additional interpretations (e.g., site type, cultural components, and human behavioral information).

m. **Evaluation and conclusions:** This section will formulate conclusions about the location, size, condition, and distribution of the resources found; their relationships to other sites in the area; and their possible importance in terms of local and regional prehistory, protohistory, and history. It will also relate the results of the study to the stated goals; identify any changes in the goals; assess the reliability of the analysis; and discuss the potential of and goals for future research.

n. **Recommendations:** This section will recommend any further work deemed necessary. It will summarize the Phase II evaluation measures needed to determine whether specific resources are eligible for the National Register of Historic Places, as well as a time and cost estimate for this work. It will also describe any areas that were inaccessible, and recommend future treatment of them. If the Contractor concludes that no further work is needed at any site, the evidence and reasoning supporting this recommendation will be presented.

o. **References:** This section will provide bibliographic references (in American Antiquity format) for every publication cited in the report. References not cited in the report may be listed in a separate "Additional References" section.

p. **Appendix:** This section will include the Scope of Work, resumes of project personnel, copies of all correspondence relating to the study, and any other pertinent information referenced in the text. It will also include State site forms for all sites identified during the survey, including find spots and previously recorded sites.

d. Figures: The location of all sites and other features discussed in the text will be shown on a legibly photocopied USGS map bound into the report. In addition, the locations of all subsurface tests will be indicated on maps of appropriate scale and detail and keyed to the subsurface testing forms included with the field notes. Other figures and/or tables should also be used as appropriate.

6.06 A cover letter submitted with the final contract report will include the project budget.

6.07 The Contractor will submit to the Contracting Officer's representative the negatives for all photographs that appear in the final report.

7.00 REPORT FORMATS

7.01 There are no specific format requirements for the field report. A letter report is usually sufficient.

7.02 There are no format requirements for the field notes; however, they must be legible. If the original handwritten notes are illegible, they will be typed.

7.03 Formats for both the draft and final contract reports are as follows:

a. The Contractor will present information in whatever textual, tabular, or graphic forms are most effective for communicating it.

b. The draft and final reports will be divided into easily discernible chapters, with appropriate page separations and headings.

c. The report text will be typed, single-spaced (the draft report should be space-and-one-half or double-spaced), on good quality bond paper, 8.5 inches by 11.0 inches, with 1.5-inch binding and bottom margins and 1-inch top and outer margins, and may be printed on both sides of the paper. All pages will be numbered consecutively, including plates, figures, tables, and appendixes.

d. All illustrations and photographs must be clear, legible, self-explanatory, and of sufficiently high quality to be reproduced easily by standard xerographic equipment, and will have margins as defined above. All maps must be labeled with a caption/description, a north arrow, a scale bar, township and range, map size and dates, and map source (e.g., the USGS quad name or published source). It is preferred that original photographs be used rather than xerox prints to insure quality.

8.00 MATERIALS PROVIDED

8.01 The Contracting Officer's representative will furnish the Contractor with access to any publications, records, maps, or photographs that are on file at the St. Paul District headquarters that are appropriate to the study being undertaken.

9.00 SUBMITTALS

9.01 The field work completion date for this project will be *1 Aug 88*. The Contractor will contact the Contracting Officer's representative at least 7 days before the field work begins to discuss the work schedule and plans.

9.02 The Contractor will submit reports according to the following schedules:

a. Field report: A brief letter report summarizing the field work and its results will be submitted to the Corps of Engineers within 10 working days of the completion of field work.

b. Draft contract report: Seven copies of the draft contract report will be submitted no later than 60 days after completion of the field work. The draft contract report will be reviewed by the Corps of Engineers, the State Historic Preservation Officer, the National Park Service, and other professionals as selected by the Corps of Engineers. The draft contract report will be submitted according to the report and contract specifications outlined in this scope of work.

c. Project field notes: One legible copy of all the project field notes will be submitted with the draft contract report.

d. Final contract report: The original and 15 copies of the final report will be submitted 60 days after the Contractor receives the Corps of Engineers comments on the draft report. The final report will incorporate all the comments made on the draft report.

10.00 CONDITIONS

10.01 Failure of the Contractor to fulfill the requirements of this Scope of Work will result in rejection of the Contractor's report and/or termination of the contract.

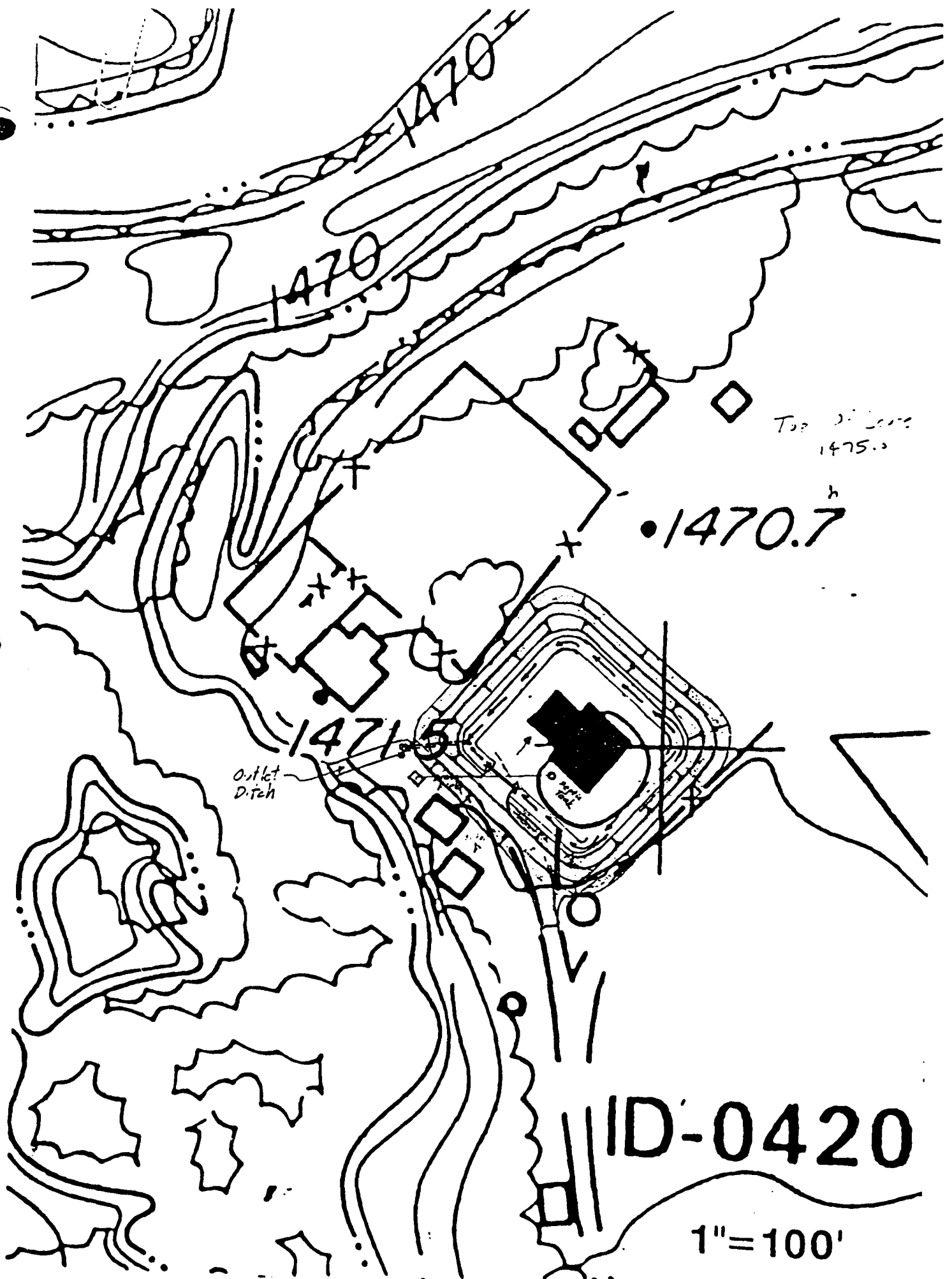
10.02 Neither the Contractor nor his representative shall release any sketch, photograph, report, or other materials of any nature obtained or prepared under the contract without specific written approval of the Contracting Officer's representative prior to the acceptance of the final report by the Government.

10.03 Site locations and other site and contract information will not be released to the public or any other agency or entity without specific permission of the Contracting Officer's representative.

10.04 All materials, documents, collections, notes, forms, maps, etc., that have been produced or acquired in any manner for use in the completion of this contract shall be made available to the Contracting Officer's representative upon request.

10.05 Principal investigators will be responsible for the validity of material presented in their reports. In the event of controversy or court challenge, the principal investigator(s) will be placed under separate contract to testify on behalf of the Government in support of the findings presented in their reports.

10.06 The Contractor will be responsible for adhering to all State laws and procedures regarding the treatment and disposition of human skeletal remains. If human remains are encountered, the Contracting Officer's representative will be immediately contacted. In addition, the remains are not be placed on public display.

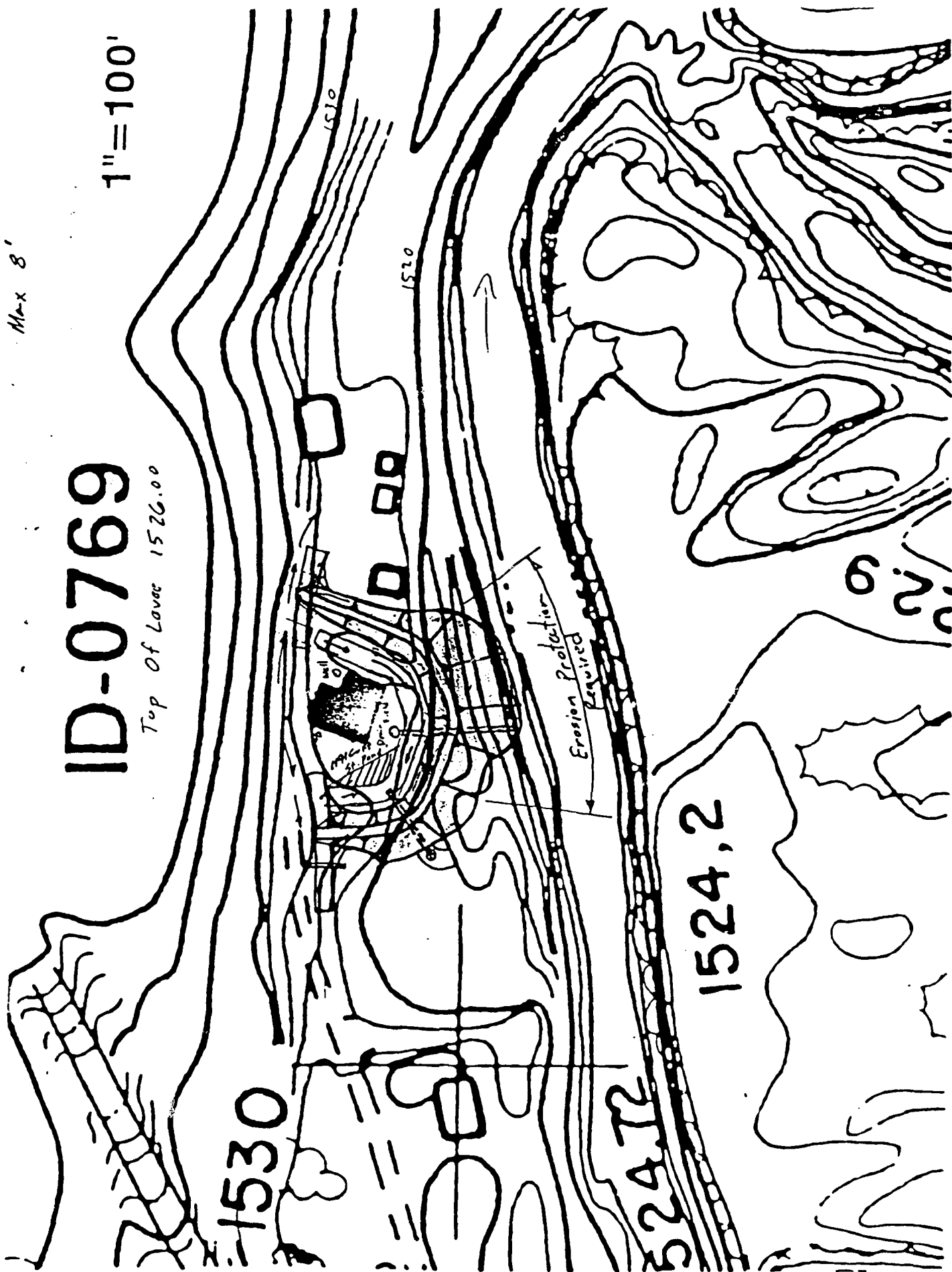


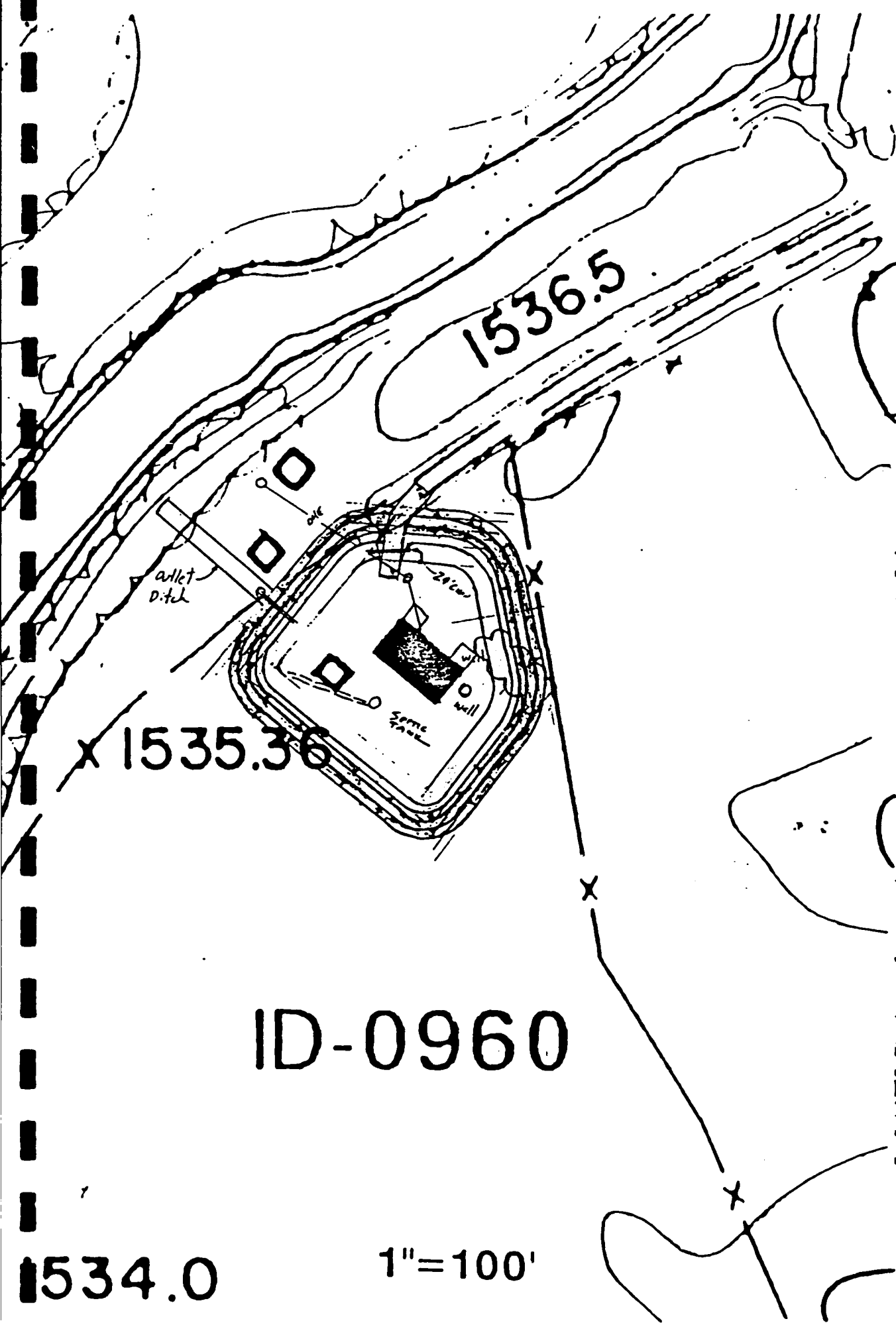
ID-0769

Top Of Lower 1526.00

1"=100'

*h varies
Max 8'*

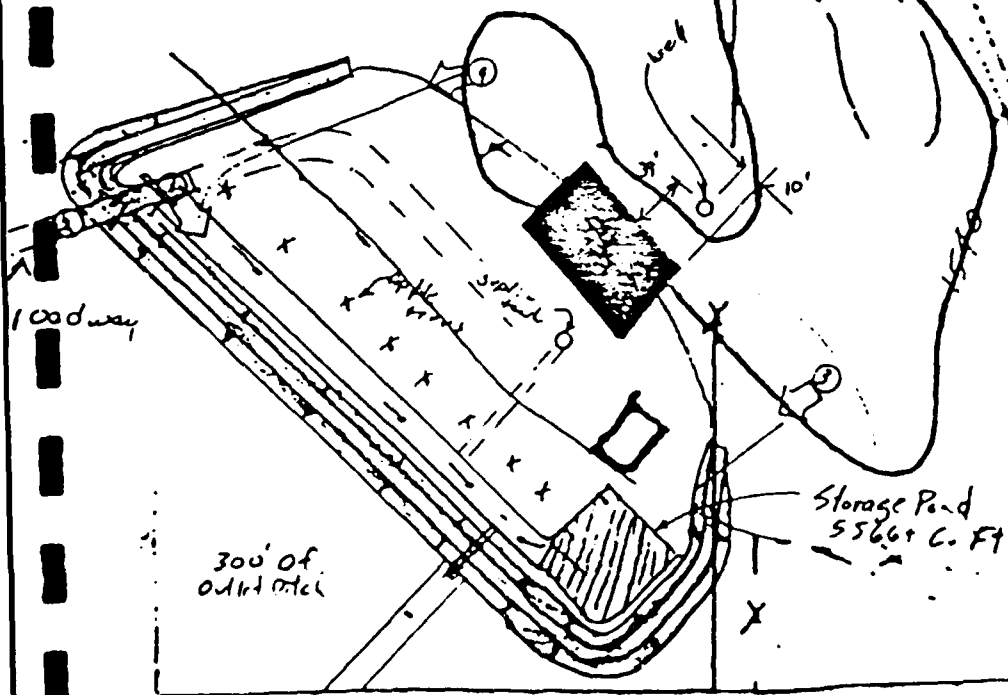




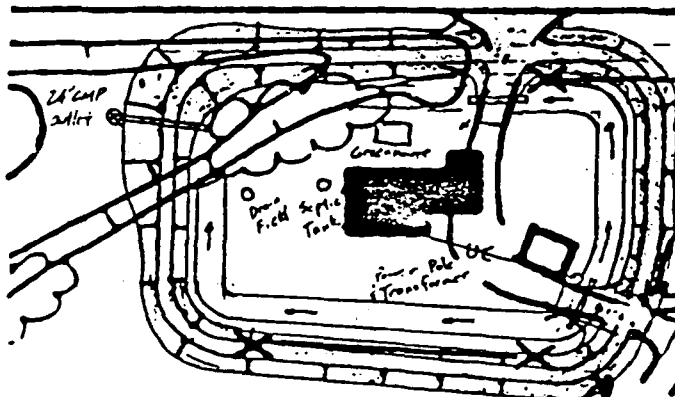
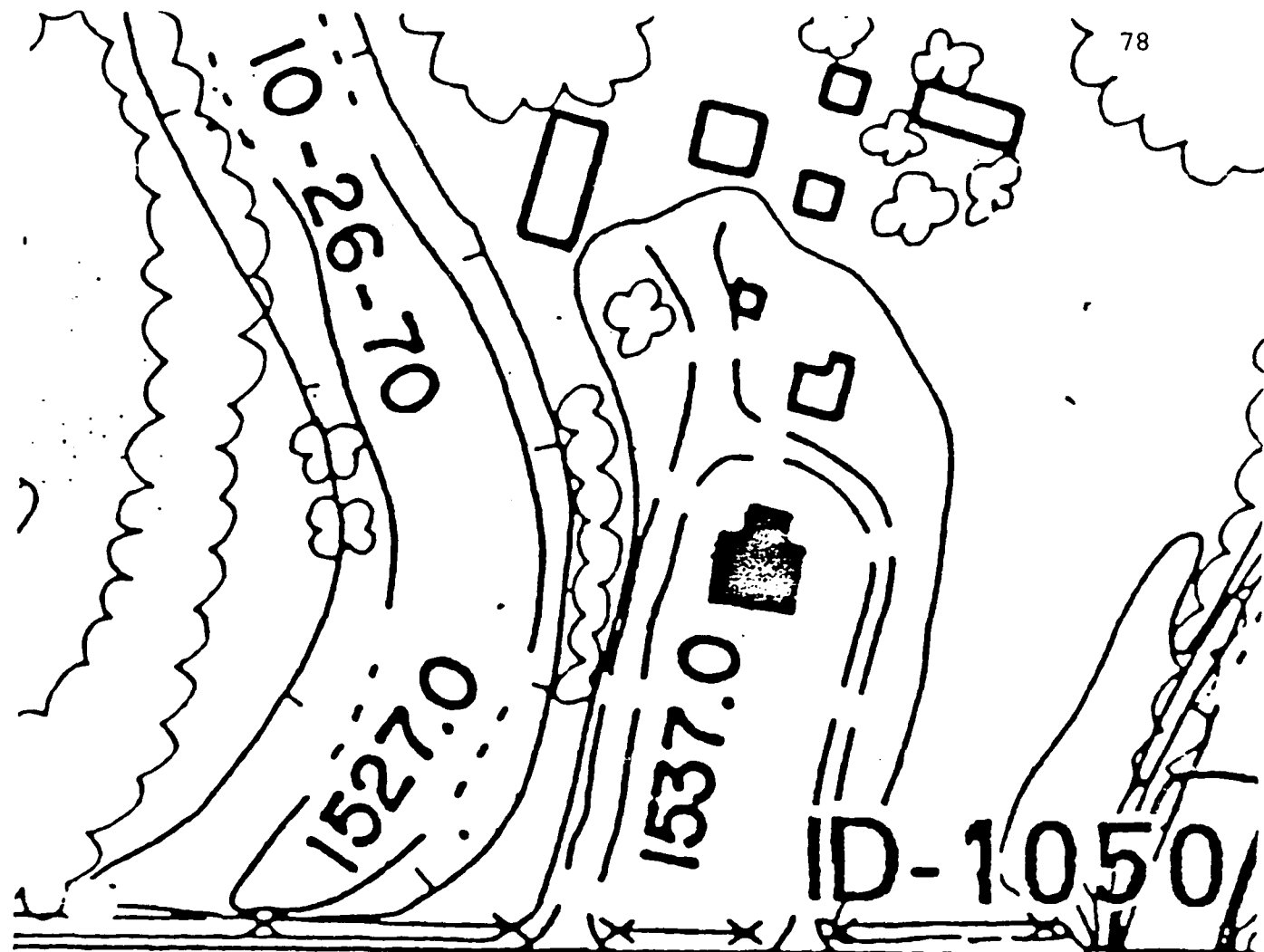
ID-0960

1" = 100'

ID-1020



W 10-26



ID-1045

1" = 100'

1540

1540

SID-1108

1540

1537.5

W

ID-1106

ID-1104

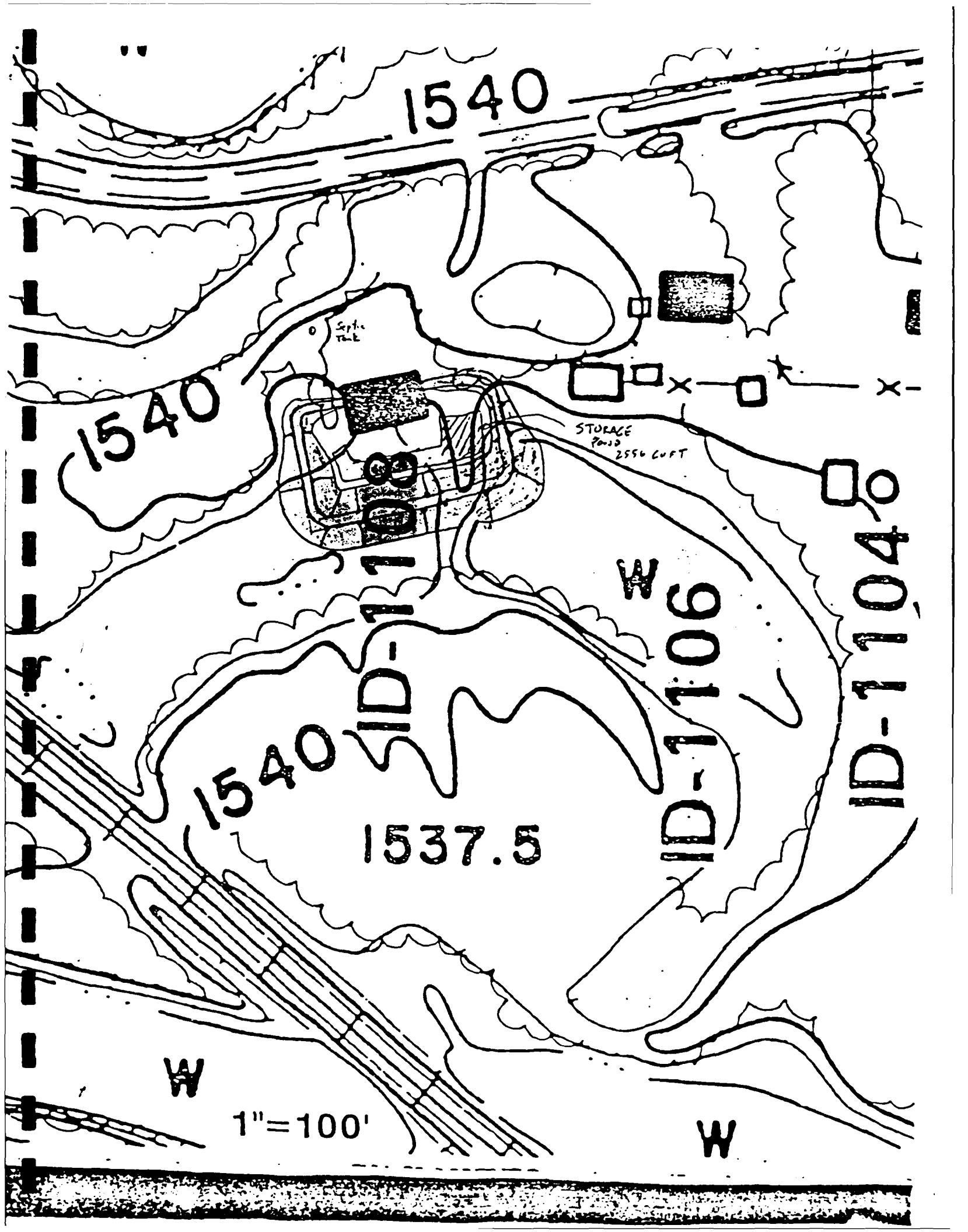
W

1"=100'

W

Septic tank

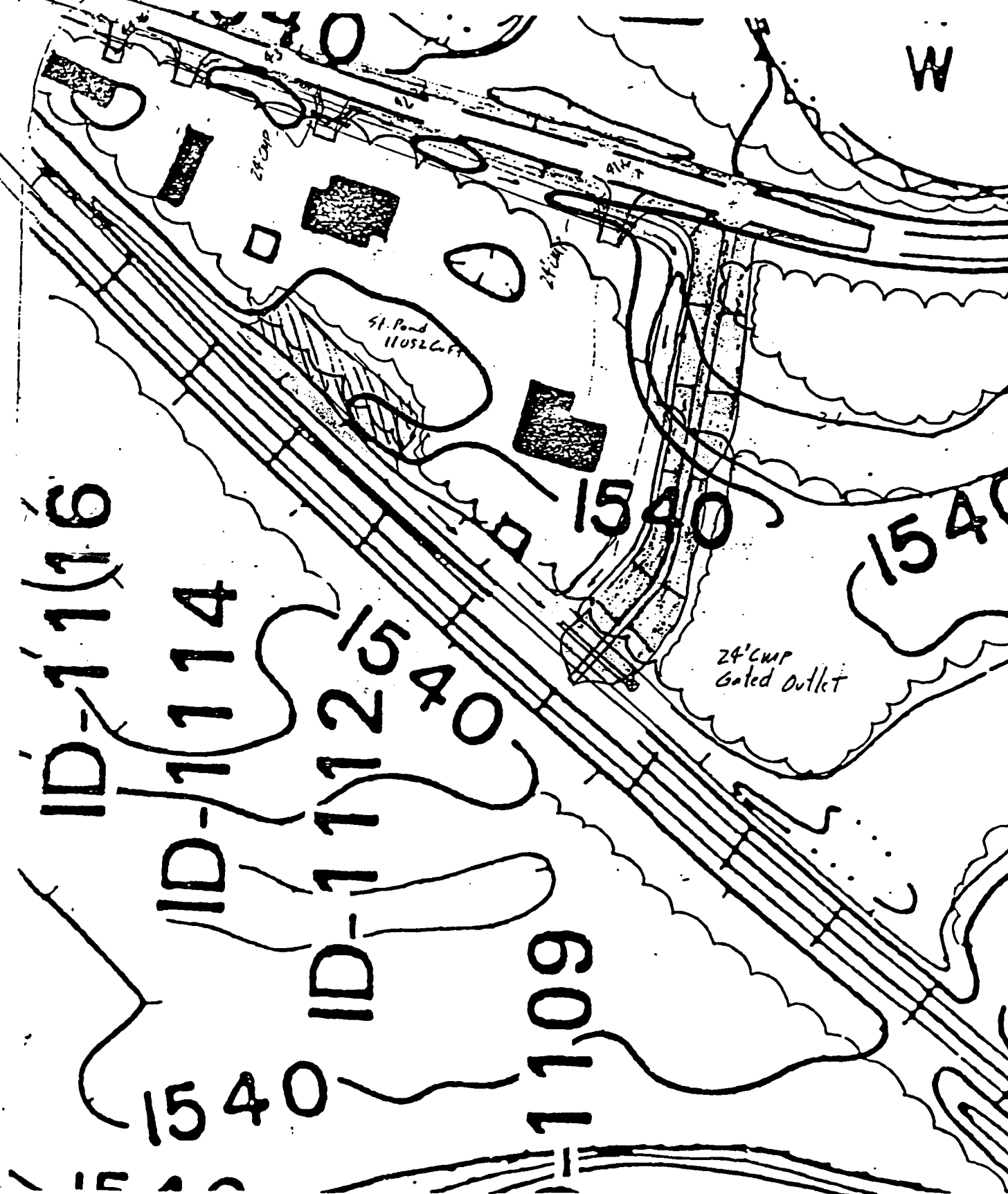
STORAGE
POND
2556 CUFT

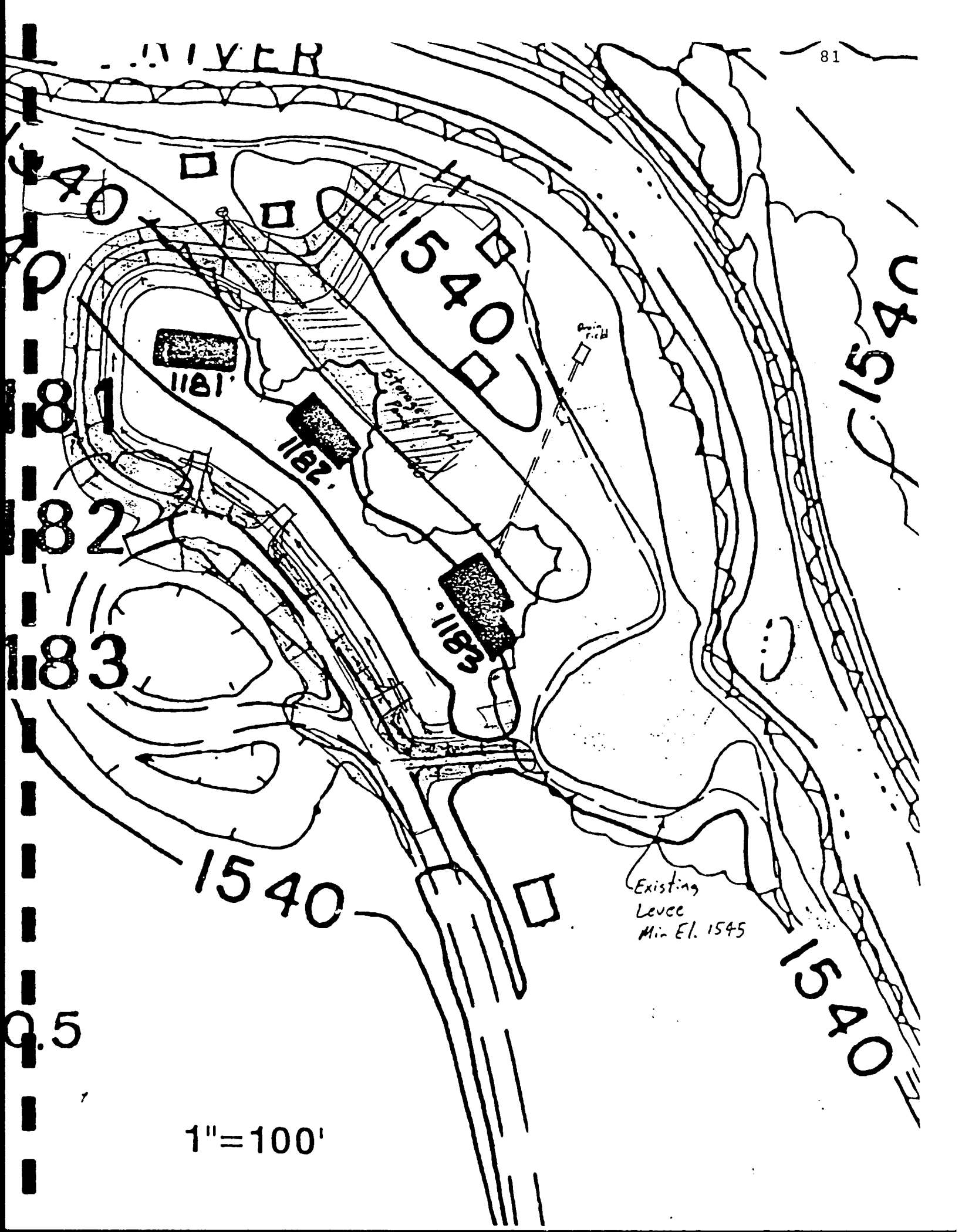


Top of Levee 1544

Raise Road Back To
Re-lroad

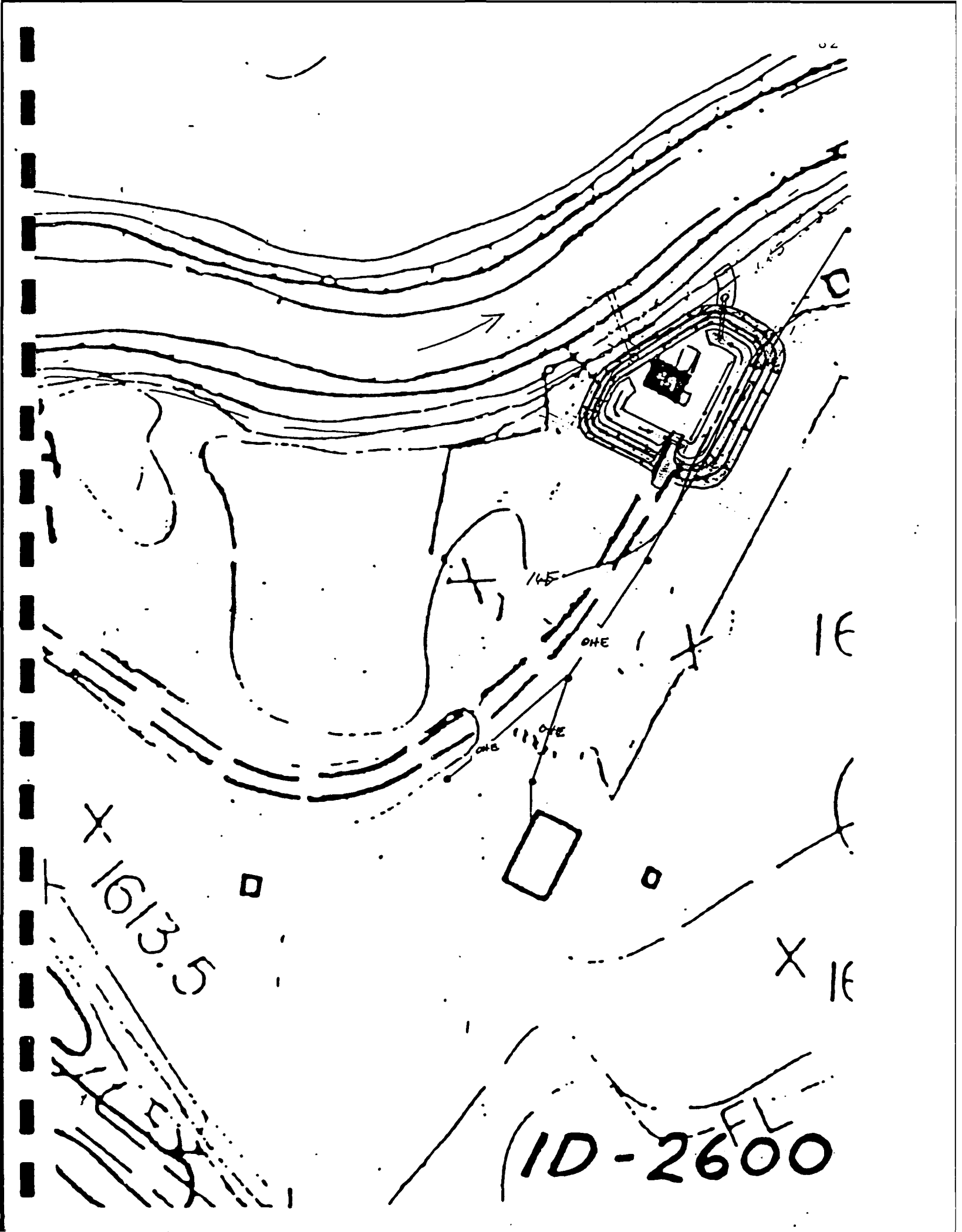
To El 1544





1"=100'

Existing
Levee
Min El. 1545



1521.7

X

X

Known
Location
of
Camp

Probable Existing
Pipe Culvert

Probable
Existing
Pipe
Culvert

Extend Piping
As Required

24" CMP
Outlet Pipe

Well

Relocate
Building

1520

1519.2

1520

1519.1

X

ID-0810

Top of Levee
1527.3

1"=100

X

1521.8

APPENDIX B

Site Forms

NUCKS SITE FORM
ARCHEOLOGICAL SITES

Page 1

SITS # 3,2 W.D. 5,3
State County Site Number

Field Code W.D. #1 Site Name _____
Field Code _____ Site Name _____

Map Quad S.A.W.Y.E.R.
Map Quad _____

LTL <input type="checkbox"/>	Twp <u>1,5,3</u>	R <u>0,8,1</u>	Sec <u>1,0</u>	QQQ <u>3</u>	QQ <u>6</u>	Q <u>5</u>
LTL <input type="checkbox"/>	Twp <u> </u>	R <u> </u>	Sec <u> </u>	QQQ <input type="checkbox"/>	QQ <input type="checkbox"/>	Q <input type="checkbox"/>
LTL <input type="checkbox"/>	Twp <u> </u>	R <u> </u>	Sec <u> </u>	QQQ <input type="checkbox"/>	QQ <input type="checkbox"/>	Q <input type="checkbox"/>
LTL <input type="checkbox"/>	Twp <u> </u>	R <u> </u>	Sec <u> </u>	QQQ <input type="checkbox"/>	QQ <input type="checkbox"/>	Q <input type="checkbox"/>
LTL <input type="checkbox"/>	Twp <u> </u>	R <u> </u>	Sec <u> </u>	QQQ <input type="checkbox"/>	QQ <input type="checkbox"/>	Q <input type="checkbox"/>
LTL <input type="checkbox"/>	Twp <u> </u>	R <u> </u>	Sec <u> </u>	QQQ <input type="checkbox"/>	QQ <input type="checkbox"/>	Q <input type="checkbox"/>

1. N
2. E
3. S
4. W
5. NE
6. SE
7. SW
8. NW
9. C

FEATURE TYPE

☐ Conical Timber Lodge
☒ CM Scatter
☐ Earthlodge Village
☐ Earthworks
☐ Fortification
☐ Grave
☐ Hearth
☐ Jump
☐ Mound
☐ Other Rock Features
☐ Pit
☐ Quarry/Mine
☐ Roc' Art
☐ Rock Shelter
☐ Stone Circle
☐ Trail
☐ Miscellaneous
☐ Isolated Find

CULTURAL MATERIAL

☐ Bone
☐ Ceramics
☐ Charcoal
☐ Copper
☐ Faunal Remains
☐ Fire Cracked Rock
☐ Floral Remains
☐ Fossil
☐ Hide, Hair, Fur
☐ Human Remains
☒ Projectile Point
☐ Shell
☒ Stone, Chipped
☐ Stone, Ground
☐ Trade Good
☐ Wood
☐ Other

1,4,0,7 m. Site Area
Cultural Depth cm
Depth Indicator

CULTURAL/TEMPORAL
AFFILIATION

 Paleo
 Archaic
☒ Late Prehistoric
 Historic
 Period Unknown

 CM Density Basis for Dating

<input checked="" type="checkbox"/> Landform 1	<u>1,5</u> Landform 2	<input checked="" type="checkbox"/> Slope/Exposure	<u> </u> Ecosystem
<input type="checkbox"/> Landform 1	<u> </u> Landform 2	<u> </u> Slope/Exposure	<u> </u> Ecosystem
Elevation	Drainage System	View, Degree	View, Distance
<u>4,6,6</u> m.	<u>S.O.U.R.I.S. R.I.V.E.R.</u>	<u>4</u>	<u>4</u>
Dist Perm Water	Perm Water Type	Dist Seas Water	Seas Water Type
<u>3,6,6</u> m.	<u>3</u>	<u>3,0</u> m.	<u>4</u>

3 Ownership

 Ownership

0,7,1,2,8,8 Fieldwork Date

 Fieldwork Date

6 Site Condition

1 Collection

0 Test/Probe

0 Excavation

Additional Information

4 Management Recommendation

S.T.E.D.W.I.C.K.S. A.L.S.O. H.A.V.E. C.O.L.L.E.C.T.I.O.N.S.

 Soil Association Ecozone Area Signf MS Number

 Soil Association Ecozone Area Signf MS Number

 CR Type Verified Site Non-Site E C F T F

 State Registry

 National Register

Coder

Date Coded

I. SITE I.D.

II. SITE DESCRIPTION

III. ENVIRONMENT

IV. C.R.M.

SHSND USE

1. Access From Minot, take Highway 2 east to the junction of Highway 52. Follow Highway 52 south-southeasterly approximately 14 miles to Sawyer. Take the first Sawyer exit (on the north end of the town). Take this street (former Highway 52) to Stredwick hobby farm-first driveway to left or north. The site lies on a rise immediately southeast of the residence.
2. Description of Site This site consists of a lithic scatter located on a small rise southeast of the Stredwick residence. The rise is probably a remnant terrace and is adjacent to the western edge of a sharp former meander of the Souris River. The site area is located within a former garden area which was not cultivated and was overgrown by weeds at the time of the survey. The entire area of the house has been disturbed by cultivation for the garden and by tree planting on the south. The site is situated on the highest point or hill on the floodplain area along the lower river bottom.
3. Description of Cultural Materials (Quantify and identify) All materials observed are of Knife River flint. Two of the flakes were secondary, utilized flake tools and the other five were tertiary waste flakes. Visibility was very poor. A much larger and denser concentration of materials is probably present. Stredwick's also have a small collection from the site.
4. Artifact Repository N/A
5. Description of Subsurface Testing No subsurface testing was conducted on the site during the surface inventory and site recordation.

6. Current Use of Site Cultivation garden at times
7. Owner's Name/Address Delores Stredwick, Sawyer, North Dakota.
8. Vegetation Dense stand of secondary weeds and grasses. No native grasses were present in cultivated areas.
9. Cover (% of visible ground) 5 to 10%.
10. Man-hours spent on site 1 hour.
11. Project Title U.S. Army Corps of Engineers, St. Paul District, Souris River Project Rural Improvements P.I. Marcia J. Tate
12. Report Title U.S. Army Corps of Engineers, St. Paul District, Souris River Project Rural Improvements Author Mervin G. Floodman
13. Other Published References N/A
14. Description of Collections Observed One small side-notched arrow point and one utilized flake both of Knife River flint. The point is typical of the Lat Prehistoric cultural period but specific cultural group is unknown.
15. Owner-Address of Collections Observed Delores Stredwick, Sawyer, North Dakota.
16. Statement of Integrity The site area is disturbed from former cultivation and gardening practices. The surface levels of the site are thus disturbed and lack integrity. Some areas of the site exhibit tree planting as well. The extent of cultural deposits and presence of intact deposits beneath the cultivated zone is unknown.
17. Statement of Significance The site is currently of undetermined significance and potential eligibility to the National Register of Historic Places. The rise of the floodplain of the Souris River presents some potential for buried stratified cultural deposits beneath the disturbed cultivation zone. The site has poor visibility, but seven items were observed. The significance and eligibility of the site should be assessed by subsurface testing prior to future disturbances.
18. Comments/References N/A

TOPO:

Photocopy, in 8½"x11" format, the portion of the 7.5' U.S.G.S. topographic quadrangle that shows the location of the site and surrounding area. Mark the boundaries of the site on the photocopy.

Attach the photocopy as a separate page of the Site Form following the Map & Photo Section.

SITE
PHOTO

B.W. ☐ Color ☐

Photo I.D. Code _____

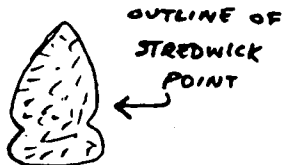
Storage Location _____

Sketch Map:

Include north arrow, individual numbered features, artifact loci, and road or street names.

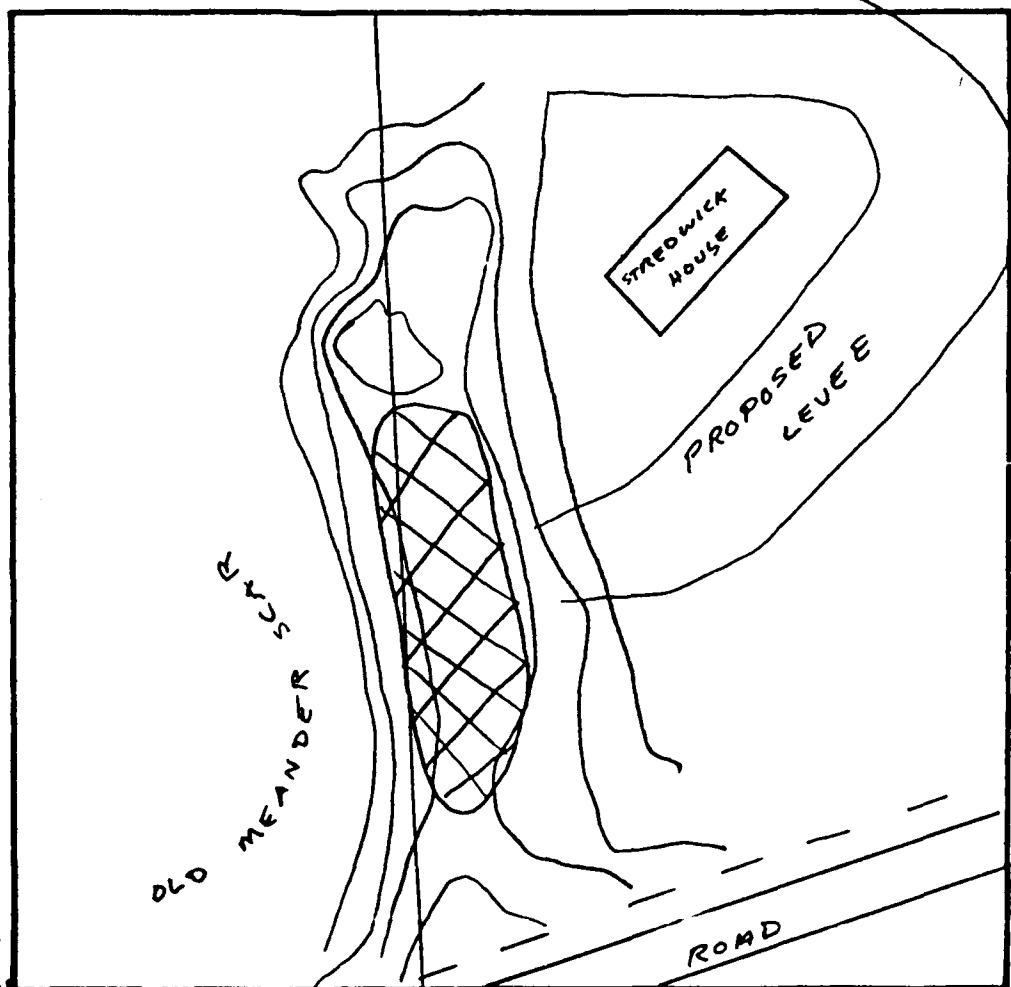
Architectural sites: include roof ridge(s) and dimensions of site.

Map Key:



Map Scale: 1 inch = 100 feet
or
1 inch = 30.48 meters

SKETCH MAP



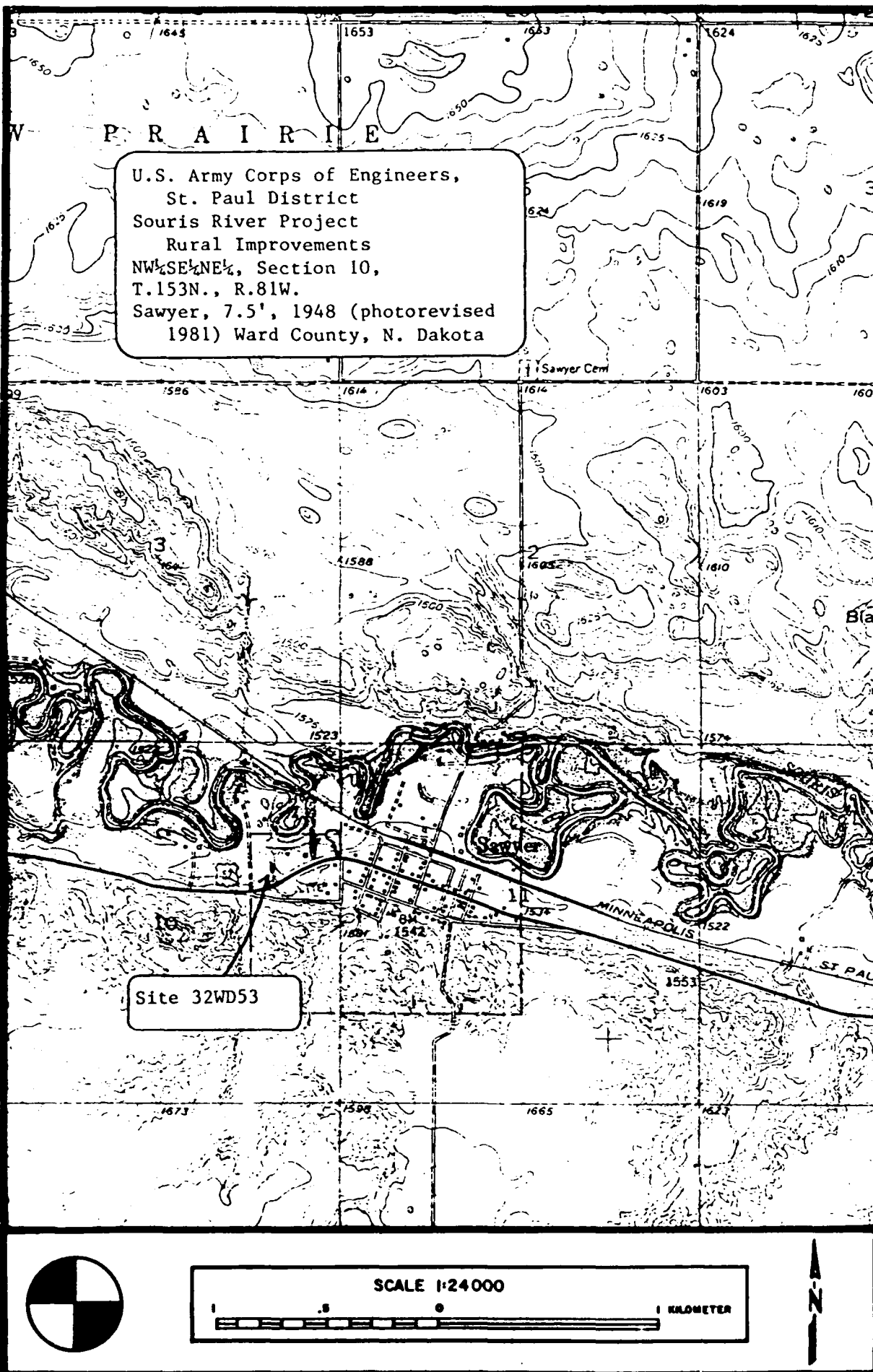
Recorded by M. Floodman

Date 7/12/88

U.S. Army Corps of Engineers,
St. Paul District
Souris River Project Rural Improvements
NW $\frac{1}{4}$ SE $\frac{1}{4}$ NE $\frac{1}{4}$, Section 10,
T.153N., R.81W.
Ward County, North Dakota



Site 32WD53, Overview Toward The North.



INDUCKS SITE FORM
ARCHEOLOGICAL SITES

Page 1

I. SITE I.D.

II. SITE DESCRIPTION

III. ENVIRONMENT

IV. C.R.M.

SHSND USE

SITS # 32
State County Site Number

Field Code I.F. # 1 Site Name
Field Code Site Name

Map Quad K A R L S R U H E N E
Map Quad

LTL <input type="checkbox"/> Twp <u>15.4</u>	R <u>0.7.7</u>	Sec <u>0.4</u>	QQQ <u>5</u>	QQ <u>5</u>	Q <u>8</u>
LTL <input type="checkbox"/> Twp <u> </u>	R <u> </u>	Sec <u> </u>	QQQ <u> </u>	QQ <u> </u>	Q <u> </u>
LTL <input type="checkbox"/> Twp <u> </u>	R <u> </u>	Sec <u> </u>	QQQ <u> </u>	QQ <u> </u>	Q <u> </u>
LTL <input type="checkbox"/> Twp <u> </u>	R <u> </u>	Sec <u> </u>	QQQ <u> </u>	QQ <u> </u>	Q <u> </u>
LTL <input type="checkbox"/> Twp <u> </u>	R <u> </u>	Sec <u> </u>	QQQ <u> </u>	QQ <u> </u>	Q <u> </u>
LTL <input type="checkbox"/> Twp <u> </u>	R <u> </u>	Sec <u> </u>	QQQ <u> </u>	QQ <u> </u>	Q <u> </u>

FEATURE TYPE	CULTURAL MATERIAL	m. x m.
<input type="checkbox"/> Conical Timber Lodge	<input type="checkbox"/> Bone	<u> </u> Site Area
<input type="checkbox"/> CM Scatter	<input type="checkbox"/> Ceramics	<u> </u> Cultural Depth <u>cm</u>
<input type="checkbox"/> Earthlodge Village	<input type="checkbox"/> Charcoal	<input type="checkbox"/> Depth Indicator
<input type="checkbox"/> Earthworks	<input type="checkbox"/> Copper	
<input type="checkbox"/> Fortification	<input type="checkbox"/> Faunal Remains	CULTURAL/TEMPORAL
<input type="checkbox"/> Grave	<input type="checkbox"/> Fire Cracked Rock	AFFILIATION
<input type="checkbox"/> Hearth	<input type="checkbox"/> Floral Remains	=====
<input type="checkbox"/> Jump	<input type="checkbox"/> Fossil	<input type="checkbox"/> Paleo
<input type="checkbox"/> Mound	<input type="checkbox"/> Hide, Hair, Fur	<input type="checkbox"/> Archaic
<input type="checkbox"/> Other Rock Features	<input type="checkbox"/> Human Remains	<input type="checkbox"/> Late Prehistoric
<input type="checkbox"/> Pit	<input type="checkbox"/> Projectile Point	<input type="checkbox"/> Historic
<input type="checkbox"/> Quarry/Mine	<input type="checkbox"/> Shell	<input type="checkbox"/> Period Unknown
<input type="checkbox"/> Rock Art	<input type="checkbox"/> Stone, Chipped	
<input type="checkbox"/> Rock Shelter	<input type="checkbox"/> Stone, Ground	
<input type="checkbox"/> Stone Circle	<input type="checkbox"/> Trade Good	
<input type="checkbox"/> Trail	<input type="checkbox"/> Wood	
<input type="checkbox"/> Miscellaneous	<input type="checkbox"/> Other	
<input checked="" type="checkbox"/> Isolated Find	<u>8</u> CM Density	<u>3</u> Basis for Dating

<u>1</u> Landform 1	<u>1.5</u> Landform 2	<u>1.0</u> Slope/Exposure	<u> </u> <u>1</u> Ecosystem
<input type="checkbox"/> Landform 1	<input type="checkbox"/> Landform 2	<input type="checkbox"/> Slope/Exposure	<input type="checkbox"/> Ecosystem
Elevation	Drainage System	View, Degree	View, Distance
<u>4.5.0</u> m.	<u> </u> S O U R I S R I V E R	<u>4</u>	<u>4</u>
Dist Perm Water	Perm Water Type	Dist Seas Water	Seas Water Type
<u>1.2.2</u> m.	<u>3</u>	<u>21.5</u> m.	<u>4</u>

<u>3</u> Ownership	<input type="checkbox"/> Ownership
<u>0.7.1.3.8.8</u> Fieldwork Date	<u> </u> Fieldwork Date
<input type="checkbox"/> Site Condition	<u>4</u> Collection
<input type="checkbox"/> Test/Probe	<input type="checkbox"/> Excavation
Additional Information	<u>1</u> Management Recommendation

<input type="checkbox"/> Soil Association	<input type="checkbox"/> Ecozone	<input type="checkbox"/> Area Signf	<u> </u> MS Number
<input type="checkbox"/> Soil Association	<input type="checkbox"/> Ecozone	<input type="checkbox"/> Area Signf	<u> </u> MS Number
<input type="checkbox"/> CR Type	<input type="checkbox"/> Verified Site	<input type="checkbox"/> Non-Site	<input type="checkbox"/> E C F <input type="checkbox"/> T F
<input type="checkbox"/> State Registry	<input type="checkbox"/> National Register		

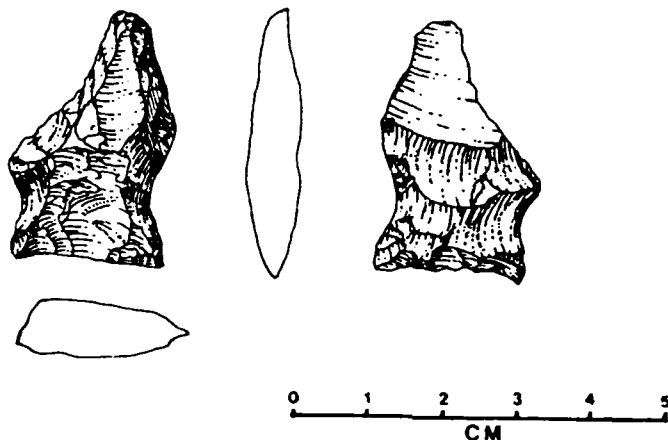
1. N
2. E
3. S
4. W
5. NE
6. SE
7. SW
8. NW
9. C

Coder

Date Coded

ISOLATED ARTIFACT RECORD

- 1.) Field Number: Isolated Find #1
2.) Legal Location: NE NE NW Section 4 T154N R77W
3.) County: McHenry 4.) State: North Dakota
5.) USGS Map Reference: Karlsruhe NE 7.5' 1950
6.) Artifact Landowner: Federal Agency _____
State Agency _____ Private Darwin Moen
7.) Collected? No X Yes Repository NDohp
8.) Recorder Name M. Floodman Date July 13, 1988
Company/Institution Powers Elevation, Inc.



- 9.) Sketch or Photo: Scale 1:1
10.) Artifact Description (Dimension-material-use-function-time period-etc.): The isolate consists of a Besant projectile point base of KRF. The artifact is broken transversely through the midsection and exhibits steep retouch along the broken surface to form a scraper edge. The artifact measures 33.8 mm long by 24.0 mm wide and 7.0 mm. thick. The point style is typical of the Middle Plains woodland Besant/Sonota complex point styles and dates to the Late Plains Archaic or Middle Prehistoric Period.

- 11.) Environmental Location (topography-vegetation-soil-slope-hydrology-etc.):

The artifact was located on a terrace above the mouth of the Wintering River at its junction with the Souris River. The artifact is located about 122 meters east of the Wintering river and 215 meters south of the Souris River. The artifact was located in a tree line southeast of the Darwin Moen residence. It was found 22 meters south of the southeast corner of the house. The area is open with lots of disturbance due to vehicles and cattle grazing. No other associated materials were noted.

- 12.) Attach USGS Map showing location of artifact

